

<p>NCC Tender File #</p>	<p>AL1719</p>
<p>Project Description</p>	<p>Granite Installation – phases 1 & 2</p>
<p>Non Mandatory Site Visit</p>	<p>A NON MANDATORY site visit for Bidders will be held on Thursday, September 14, 2017 from 11am to noon EDT. All costs incurred by the Bidder to attend the site visit will be at their expense. The NCC will not reimburse any Bidder for expenses related to the site visit. To confirm your attendance at the site visit and to gain access to the grounds, please communicate with NCC Corporate Security at 613-239-5222 or securityscreening@ncc-ccn.ca at least 24 hours prior to the site visit. Please note that all visits to sensitive sites shall be coordinated with, and approved by NCC Corporate Security.</p>
<p>Closing date and time</p>	<p>Friday, September 22, 2017 at 3pm EDT</p>

RETURN TENDERS TO: National Capital Commission 40 Elgin Street, Security Office on the 2 nd floor Ottawa, ON K1P 1C7	NCC Tender Number AL1719
	NCC Contract Number
TENDER CLOSING DATE AND TIME: Friday, September 22, 2017 at 3pm EDT	

DESCRIPTION OF WORK: Granite Installation – phases 1 & 2

1. BUSINESS NAME AND ADDRESS OF BIDDER

Name: _____

Address: _____

Telephone number: _____ **Fax number:** _____

E-mail address: _____

2. THE OFFER

The Bidder offers to the National Capital Commission (NCC) to perform and complete the work for the above mentioned project in accordance with the tender documents for the total tender amount (to be expressed in numbers only) of:

Sub Total	\$	_____
OHST – 13%	\$	_____
TOTAL ESTIMATED AMOUNT	\$	_____

3. TENDER VALIDITY PERIOD

The tender shall not be withdrawn for a period of 60 days following the date and time of tender closing.

4. CONTRACT DOCUMENTS

1. The following are the contract documents:
 - (a) Invitation to Tender & Acceptance Form when signed by the NCC;
 - (b) Duly completed Invitation to Tender & Acceptance Form and any Appendices attached thereto;
 - (c) Drawings and Specifications;
 - (d) General Conditions (GC1 to GC10);
 - (e) Supplementary Conditions, if any;
 - (f) Insurance Terms;
 - (g) Occupational Health and Safety Requirements;
 - (h) Addenda
 - (i) Any amendments issued or any allowable tender revision received before the date and time set for tender closing;
 - (j) Any amendment incorporated by mutual agreement between the NCC and the Contractor before acceptance of the tender; and
 - (k) Any amendment or variation of the contract documents that is made in accordance with the General Conditions;
 - (l) Security Requirements.

2. The language of the contract documents shall be the language of the Invitation to Tender & Acceptance Form submitted.

NCC Tender Number AL1719

NCC Contract Number

5. APPENDICES

The tender includes Appendix(ces) Nos I and II to the Invitation to Tender & Acceptance Form.

6. ACCEPTANCE AND CONTRACT

Upon acceptance of the Contractor's offer by the NCC, a binding Contract shall be formed between the NCC and the Contractor. The documents forming the Contract shall be the contract documents referred to in 4 – CONTRACT DOCUMENTS.

7. CONSTRUCTION TIME

The Contractor shall perform and complete the Work:

- .1 Phase one (South Pathway) of this contract must commence October 9, 2017, and have achieved substantial completion by October 31, 2017.
- .2 Phase two (North Drive) of this contract will start in the spring of 2018. Exact date to be determined.

8. UNIT PRICE TABLE

The Bidder agrees that

- (a) the Unit Price Table designates that part of the Work to which a Unit Price Arrangement applies.
- (b) the Price per Unit and the Estimated Total Price must be entered for each item listed;
- (c) the Price per Unit as tender governs in calculating the Total Estimated Amount, and any errors in the extension of the Price per Unit and in the addition of the Estimated Total Prices shall be corrected by the NCC in order to obtain the Total Estimated Amount; and
- (d) the following table is the Unit Price Table for the purposes of the tender and the Contract:

UNIT PRICE TABLE

Note: Transfer the Total Estimated Amount from the Unit Price Table to item 2 – THE OFFER of this Invitation to Tender & Acceptance Form

Item #	Description	Unit	Est. Qty	Unit Rate of the Item excl taxes	Extended Total or Lump Sum price
	GENERAL				
1.1	Mobilization and General Requirements	lump sum	1		
1.2	Selective Demolition and Removals	lump sum	1		
1.3	Excavation, Backfilling and Site Grading	lump sum	1		
1.4	Stop Work Order (allowance)	hours	250		

	LANDSCAPE				
2.1	Granite: P1 Paver Stones	sq. m.	8		
2.2	Granite: P2 Pavers Stones	sq. m.	202		
2.3	Granite: P3 Pavers Stones	sq. m.	11		
2.4	Granite: P4 Pavers Stones	sq. m.	3		
2.5	Granite: B1 Border Stones	sq. m.	3		
2.6	Granite: B2 Border Stones	sq. m.	1		
2.7	Granular Paving Base (if required)	metric tonne	1		
2.8	Asphalt Paving (if required)	sq. m.	1		
2.9	Topsoil and Sodding	sq. m.	5		
2.10	Wind Sensor Anemometer	lump sum	1		
				SUB-TOTAL	

9. The basis of award is low total cost to the NCC including all taxes.

10. I/We acknowledge receipt of the following addenda _____
 (Bidder to enter number of addenda issues, if any) and have included for the requirement of it/them in my/our tendered price.

11. TENDER SECURITY

1. The Bidders shall enclose tender security with its tender in accordance with GI08 TENDER SECURITY REQUIREMENTS.
2. If the security furnished does not comply fully with the requirements referred to in paragraph 1) herein, the tender shall be disqualified.
3. If a security deposit is furnished as tender security, it shall be forfeited in the event that the tender is accepted by the NCC and the Contractor fails to provide Contract Security in accordance with GC9 CONTRACT SECURITY, provided that the NCC may, if it is in the public interest, waive the forfeiture of the security deposit.

We hereby offer to supply to the NCC in accordance with the terms and conditions set out herein, the construction work listed above and on any attached sheets at the submitted price(s).

Name and title of person authorized to sign on behalf of Bidder
(please print or type)

Signature

Date

Your tender is accepted to supply to the NCC, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the construction services listed herein and on any attached sheets at the price(s) set out therefore.

Name and title of the person authorized to sign on behalf of the NCC
(please print or type)

Signature

Date

INVOICING

Send the original invoice and 1 copy to:

**Accounts Payable
National Capital Commission
202-40 Elgin Street
Ottawa, ON K1P 1C7**

Or by email at the following address: payables@ncc-ccn.ca

To ensure prompt payment, please prepare your invoice in accordance with the prices quoted. Errors in invoicing can cause delay of payment. Submit your invoice to the address shown above and clearly indicate the Purchase Order number.

INVITATION TO TENDER & ACCEPTANCE FORM	APPENDIX 1
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- 1) The Bidder will subcontract the parts of the work listed below to the subcontractor named for each part. The Bidder agrees not to make changes in the list of subcontractors without the written consent of the NCC Representative. The Bidder understands that for each part of the work identified as Mandatory, if more than one subcontractor is named or no subcontractor is named, or, the Bidder fails to state that the work will be done by its own forces where applicable, the tender will be disqualified.
- 2) The Bidder certifies that tenders for the part(s) of the Work listed below were received from the following subcontractors:

NON-MANDATORY REQUIREMENT:

- (a) Any other work not listed above

Type of work: _____	Sub-contractor: _____
Type of work: _____	Sub-contractor: _____
Type of work: _____	Sub-contractor: _____
Type of work: _____	Sub-contractor: _____
Type of work: _____	Sub-contractor: _____
Type of work: _____	Sub-contractor: _____

MANDATORY REQUIREMENT: The NCC identifies the supplier(s) responsible for supplying the following material(s).

- (a) **GRANITE**

Name: Technoprofil
 Address: 960, chemin Oliver St-Nicolas Québec Canada G7A 2N1, www.technoprofil.ca

Supplier No. / N° du fournisseur

New supplier / Nouveau fournisseur Update / Mise à jour

**SUPPLIER-DIRECT DEPOSIT PAYMENT AND TAX INFORMATION FORM
FOURNISSEUR-FORMULAIRE DE PAIEMENT PAR DÉPÔT DIRECT ET RENSEIGNEMENTS AUX FINS DE L'IMPÔT**

For NCC use only / À l'usage de la CCN seulement

PART 'A' - IDENTIFICATION / PARTIE 'A' - IDENTIFICATION

Legal name of entity or individual / Nom légal de l'entité ou du particulier	Operating name of entity or individual (if different from Legal Name) / Nom commercial de l'entité ou du particulier (s'il diffère du nom légal)
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Former Public Servant in receipt of a PSSA Pension / Ancien fonctionnaire qui reçoit une pension en vertu de la LPPF	<input type="checkbox"/> Yes / Oui	<input type="checkbox"/> No / Non
An entity, incorporated or sole proprietorship, which was created by a Former Public Servant in receipt of a PSSA pension or a partnership made of former public servants in receipt of PSSA pension or where the affected individual has a controlling or major interest in the entity. / Une entité, constituée en société ou à propriétaire unique, créée par un ancien fonctionnaire touchant une pension en vertu de la LPPF, ou un partenariat formé d'anciens fonctionnaires touchant une pension en vertu de la LPPF, où les entités dans lesquelles ils détiennent le contrôle ou un intérêt majoritaire.	<input type="checkbox"/> Yes / Oui	<input type="checkbox"/> No / Non

Address / Adresse	Telephone No. / N° de téléphone :	Fax No. / N° de télécopieur :
Postal code / Code postal	()	()

**PART 'B' - STATUS OF SUPPLIER / PARTIE 'B' - STATUT DU FOURNISSEUR
IMPORTANT : CHOOSE ONLY ONE OF THE FOLLOWING/CHOISIR SEULEMENT UNE DES OPTIONS SUIVANTES:**

(1) Sole proprietor / Propriétaire unique <input type="checkbox"/>	If sole proprietor, provide: / Si propriétaire unique, indiquez :	Last Name / Nom de famille	First name / Prénom	Initial / Initiale
(2) Partnership / Société de personnes <input type="checkbox"/>	(3) Corporation / Société <input type="checkbox"/>			

Business No. (BN) / N° de l'entreprise (NE) -	OR / OU	SIN / NAS -
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GST/HST / TPS et TVH	QST / TVQ (Québec)
Number / Numéro : Not registered / non inscrit <input type="checkbox"/>	Number / Numéro : Not registered / non inscrit <input type="checkbox"/>

Type of contract / Genre de contrat	Contract for services only / Contrat de services seulement <input type="checkbox"/>	Contract for mixed goods & services / Contrat de biens et services <input type="checkbox"/>	Contract for goods only / Contrat de biens seulement <input type="checkbox"/>
Type of goods and/or services offered / Genre de biens et / ou services rendus :			

PART 'C' - FINANCIAL INSTITUTION / PARTIE 'C' - RENSEIGNEMENTS SUR L'INSTITUTION FINANCIÈRE

Please send a void cheque with this form / Veuillez, s.v.p., envoyer un spécimen de chèque avec ce formulaire

Branch Number / N° de la succursale	Institution No. / N° de l'institution :	Account No. / N° de compte :
Institution name / Nom de l'institution :	Address / Adresse :	Postal Code / Code postal :

PART 'D' - DIRECT DEPOSIT PAYMENT NOTIFICATION / PARTIE 'D' - AVIS DE PAIEMENT PAR DÉPÔT DIRECT

E-mail address / Adresse courriel :

PART 'E' - EMAIL ADDRESS TO SEND CONTRACTS / PARTIE 'E' - ADRESSE COURRIEL POUR ENVOYER LES CONTRATS

E-mail address / Adresse courriel :

PART 'F' - CERTIFICATION / PARTIE 'F' - CERTIFICATION

I certify that I have examined the information provided above and it is correct and complete, and fully discloses the identification of this supplier.	Je déclare avoir examiné les renseignements susmentionnés et j'atteste qu'ils sont exacts et constituent une description complète, claire et véridique de l'identité de ce fournisseur.		
Where the supplier identified on this form completes part C, he hereby requests and authorizes the National Capital Commission to directly deposit into the bank account identified in part C, all amounts payable to the supplier.	Lorsque le fournisseur indiqué sur ce formulaire remplit la partie C, par la présente, il demande et autorise la Commission de la capitale nationale à déposer directement dans le compte bancaire indiqué à la partie C, tous les montants qui lui sont dus.		
Name of authorized person / Nom de la personne autorisée	Title / Titre	Signature	Date
Telephone number of contact person / Numéro de téléphone de la personne ressource : ()			

IMPORTANT

Please fill in and return to the National Capital Commission with one of your business cheque unsigned and marked « VOID » (for verification purposes).	Veillez remplir ce formulaire et le retourner à la Commission de la capitale nationale avec un spécimen de chèque de votre entreprise non signé et portant la mention « ANNULÉ » (à des fins de vérification).
Mail or fax to: Procurement Services National Capital Commission 202-40 Elgin Street Ottawa, ON K1P 1C7 Fax: (613) 239-5007	Poster ou télécopier à : Services de l'approvisionnement Commission de la capitale nationale 40, rue Elgin, pièce 202 Ottawa (Ontario) K1P 1C7 Télécopieur : (613) 239-5007

SUPPLIER – DIRECT DEPOSIT PAYMENT AND TAX INFORMATION FORM

FOURNISSEUR – FORMULAIRE DE PAIEMENT PAR DÉPÔT DIRECT ET RENSEIGNEMENTS AUX FINS DE L'IMPÔT

Supplier Tax Information

Pursuant to paragraph 221(1) (d) of the *Income Tax Act*, NCC must declare form T-1204, contractual payments of government for services, all payments made to suppliers during the calendar year in accordance to related service contracts (including contracts for mixed goods and services).

The paragraph 237(1) of the *Income Tax Act* and the article 235 of the Income Tax Regulations require the supplier to provide all necessary information below to the organization who prepares the fiscal information forms.

Questions: Sylvie Monette, Accounts Payable Supervisor
(613) 239-5678 ext. 5156 or sylvie.monette@ncc-ccn.ca

Direct deposit payment information

All amounts payable by NCC to the supplier will be deposited directly into the account you identified in part C. A NCC payment advice notice will also be sent to you by e-mail detailing the particularities of the payment to the address identified in part D.

Until we process your completed form, we will still pay you by check.

You must notify the NCC of any changes to your financial institution, branch or account number. You will then have to complete a new form.

The account you identified has to hold Canadian funds at a financial institution in Canada.

The advantages of direct deposit payment

Direct deposit payment is a convenient, dependable, safe and timesaving way to receive your invoice payment. Direct deposit payment is completely confidential.

There are fewer risks of direct deposit payment being lost, stolen, or damaged as may happen with cheques.

Funds made by direct deposit payment will be available in your bank account on the same day that we would have mailed your cheque.

Renseignements sur les fournisseurs aux fins de l'impôt

En vertu de l'alinéa 221(1) (d) de la *Loi de l'impôt sur le revenu*, la CCN est tenu de déclarer, à l'aide du formulaire T-1204, Paiements contractuels de services du gouvernement, tous paiements versés aux fournisseurs pendant une année civile en vertu de marchés de services pertinents (y compris les marchés composés à la fois de biens et de services).

Le paragraphe 237 (1) de la *Loi de l'impôt sur le revenu* et l'article 235 du Règlement de l'impôt sur le revenu obligent les fournisseurs à fournir toutes les informations demandées ci-dessous à l'organisme qui prépare les formulaires de renseignements fiscaux.

Questions : Sylvie Monette, Superviseure aux comptes payable
(613) 239-5678 poste 5156 ou sylvie.monette@ncc-ccn.ca

Renseignements sur le paiement par dépôt direct

Tous les montants versés par la CCN au fournisseur seront déposés directement dans le compte identifié à la partie C. Un avis de paiement de la CCN détaillant les particularités du paiement par dépôt direct vous sera envoyé par courriel à l'adresse courriel identifiée à la partie D.

Nous continuerons à vous payer par chèque jusqu'à ce que nous ayons traité votre formulaire.

Vous devez aviser la CCN de tout changement d'institution financière, de succursale ou de numéro de compte. Vous devrez donc remplir un nouveau formulaire.

Le compte que vous désignez doit être un compte en monnaie canadienne, détenu dans une institution financière au Canada.

Avantages du paiement par dépôt direct

Le paiement par dépôt direct est une méthode pratique, fiable et sécuritaire, qui permet de gagner du temps dans la réception de vos paiements de factures. Le paiement par dépôt direct est entièrement confidentiel.

Avec les paiements par dépôt direct, il y a moins de risques de perte, de vol ou de dommage, comme cela peut se produire dans le cas des chèques.

Les paiements effectués par paiement par dépôt direct sont versés dans votre compte le jour même où nous aurions posté votre chèque.

- SI01 Tender Documents
- SI02 Enquiries during the Solicitation Period
- SI03 Non Mandatory Site Visit
- SI04 Revision of Tender
- SI05 Tender Results
- SI06 Negotiations
- SI07 Tender Validity Period
- SI08 Construction Documents
- SI09 Public Tender Opening

SI01 TENDER DOCUMENTS

- 1) The following are the tender documents:
 - (a) Invitation to Tender & Acceptance Form and any Appendices attached thereto;
 - (b) Special Instructions to Bidders; and
 - (c) General Instructions to Bidders.

Submission of a tender constitutes acknowledgement that the Bidder has read and agrees to be bound by these documents.

SI02 ENQUIRIES DURING THE SOLICITATION PERIOD

- 1) Enquiries regarding this tender must be submitted in writing to the following: Sr. Contract Officer, Allan Lapensée e-mail address – allan.lapensee@ncc-ccn.ca as early as possible within the solicitation period. Except for the approval of alternative materials as described in GI15 of the General Instructions to Bidders, enquiries should be received no later than five (5) calendar days prior to the date set for solicitation closing to allow sufficient time to provide a response. Enquiries received after that time may result in an answer not being provided.
- 2) To ensure consistency and quality of the information provided to Bidders, the Sr. Contract Officer shall examine the content of the enquiry and shall decide whether or not to issue an amendment.
- 3) All enquiries and other communications related to this tender sent throughout the solicitation period are to be directed **ONLY** to the Sr. Contract Officer named above. Non-compliance with this requirement during the solicitation period can, for that reason alone, result in disqualification of a tender.

SI03 NON MANDATORY SITE VISIT

- 1) A NON MANDATORY site visit for Bidders will be held on Thursday, September 14, 2017 from 11am to noon EDT. All costs incurred by the Bidder to attend the site visit will be at their expense. The NCC will not reimburse any Bidder for expenses related to the site visit. **To confirm your attendance at the site visit and to gain access to the grounds, please communicate with NCC Corporate Security at 613-239-5222 or securityscreening@ncc-ccn.ca at least 24 hours prior to the site visit. Please note that all visits to sensitive sites shall be coordinated with, and approved by NCC Corporate Security.**

SI04 REVISION OF TENDER

- 1) A tender may be revised by letter or facsimile in accordance with GI10 of the General Instructions to Bidders. The facsimile number for receipt of revisions is 613-239-5012.

SI05 TENDER RESULTS

- 1) Following solicitation closing, tender results may be obtained by calling the Sr. Contract Officer, see item SI02.

SI06 NEGOTIATIONS

- 1) In the event that the lowest compliant tender exceeds the amount of funding the NCC has allocated for the construction phase of the work:
 - (a) by 15% or less, the NCC, at its sole discretion, shall either:
 - (i) cancel the invitation to tender; or
 - (ii) obtain additional funding and, subject to the provisions of GI11 and GI09 of the General Instructions to Bidders, award the Contract to the Bidder submitting the lowest compliant tender; or
 - (iii) revise the scope of the work accordingly and negotiate, with the Bidder submitting the lowest compliant tender, a corresponding reduction in its tender price.
 - (b) by more than 15%, the NCC, at its sole discretion, shall either:
 - (i) cancel the invitation to tender; or
 - (ii) obtain additional funding and, subject to the provisions of GI11 and GI09 of the General Instructions to Bidders, award the Contract to the Bidder submitting the lowest compliant tender; or
 - (iii) revise the scope of the work accordingly and invite those who submitted compliant tenders at the original invitation to tender to re-tender the work.
- 2) If negotiations or a re-tender are undertaken as is contemplated in subparagraphs 1)(a)(iii) or 1)(b)(iii) above, Bidders shall retain the same subcontractors and suppliers as they carried in their original tenders.
- 3) If the NCC elects to negotiate a reduction in the tender price as is contemplated in subparagraph 1)(a)(iii) herein and the negotiations fail to reach an agreement, the NCC shall then exercise either of the options referred to subparagraphs 1)(a)(i) or 1)(a)(ii).

SI07 TENDER VALIDITY PERIOD

- 1) The NCC reserves the right to seek an extension to the tender validity period prescribed in 3 of the Invitation to Tender & Acceptance Form. Upon notification in writing from the NCC, Bidders shall have the option to either accept or reject the proposed extension.
- 2) If the extension referred to in paragraph 1) of SI07 is accepted, in writing, by all those who submitted tenders, then the NCC shall continue immediately with the evaluation of the tenders and its approvals processes.

- 3) If the extension referred to in paragraph 1) of SI07 is not accepted in writing by all those who submitted tenders then the NCC shall, at its sole discretion, either:
 - (a) continue to evaluate the tenders of those who have accepted the proposed extension and seek the necessary approvals; or
 - (b) cancel the invitation to tender.
- 4) The provisions expressed herein do not in any manner limit the NCC's rights in law or under GI11 of the General Instructions to Bidders.

SI08 CONSTRUCTION DOCUMENTS

- 1) The successful contractor will be provided with one paper copy of the sealed and signed plans, the specifications and the amendments upon acceptance of the offer. Additional copies, may be available free of charge upon request by the contractor. If not, obtaining more copies shall be the responsibility of the contractor including costs.

SI09 PUBLIC TENDER OPENING

- 1) A public tender opening will be held on September 22, 2017 at 3:00pm EDT at 40 Elgin Street, Ottawa, ON beside the security office on the 2nd floor.

- GI01 Completion of Tender
- GI02 Identity or Legal Capacity of the Bidder
- GI03 Goods and Services Tax / Harmonized Sales Tax
- GI04 Québec Sales Tax
- GI05 Capital Development and Redevelopment Charges
- GI06 Registry and Pre-qualification of Floating Plant
- GI07 Listing of Subcontractors and Suppliers
- GI08 Tender Security Requirements
- GI09 Submission of Tender
- GI10 Revision of Tender
- GI11 Acceptance of Tender
- GI12 Procurement Business Number
- GI13 Bid Depository
- GI14 Compliance with Applicable Laws
- GI15 Approval of Alternative Materials
- GI16 Performance Evaluation

GI01 Completion of Tender

- 1) The tender shall be:
 - (a) submitted on the Invitation to Tender and Acceptance Form provided through the Government Electronic Tendering Service (GETS) or on a clear and legible reproduced copy of such Invitation to Tender and Acceptance Form that must be identical in content and format to the Invitation to Tender and Acceptance Form provided through GETS;
 - (b) based on the Tender Documents listed in the Special Instructions to Bidders;
 - (c) correctly completed in all respects;
 - (d) signed by a duly authorized representative of the Bidder; and
 - (e) accompanied by
 - (i) tender security as specified in GI08; and
 - (ii) any other document or documents specified elsewhere in the solicitation where it is stipulated that said documents are to accompany the tender.
- 2) Subject to paragraph 6) of GI11, any alteration to the pre-printed or pre-typed sections of the Invitation to Tender and Acceptance Form, or any condition or qualification placed upon the tender shall be cause for disqualification. Alterations, corrections, changes or erasures made to statements or figures entered on the Invitation to Tender and Acceptance Form by the Bidder shall be initialled by the person or persons signing the tender. Initials shall be original(s). Alterations, corrections, changes or erasures that are not initialled shall be deemed void and without effect.
- 3) Unless otherwise noted elsewhere in the Tender Documents, facsimile copies of tenders are not acceptable.

GI02 Identity or Legal Capacity of the Bidder

- 1) In order to confirm the authority of the person or persons signing the tender or to establish the legal capacity under which the Bidder proposes to enter into Contract, any Bidder who carries on business in other than its own personal name shall, if requested by the NCC prior to award of contract, provide satisfactory proof of:

- (a) such signing authority; and
- (b) the legal capacity under which it carries on business.

Proof of signing authority may be in the form of a certified copy of a resolution naming the signatory(ies) that is (are) authorized to sign this tender on behalf of the corporation or partnership. Proof of legal capacity may be in the form of a copy of the articles of incorporation or the registration of the business name of a sole proprietor or partnership.

GI03 Goods and Services Tax / Harmonized Sales Tax

- 1) The National Capital Commission (NCC) is a Crown Corporation subject to the Goods and Services Tax (GST), the Ontario Provincial Sales Tax (OST) and the Quebec Sales Tax (QST). The rates quoted are exclusive of the GST and the OST/QST. The successful firm will be required to indicate separately, on all invoices or requests for payments, the amount of Goods and Services Sales Tax (GST), the amount of Ontario Sales Tax (OST) and the amount of Quebec Sales Tax (QST), to the extent applicable, that the Commission must pay. These amounts will be paid to the successful Bidder who is required to make the appropriate remittances to Revenue Canada and the respective provincial governments.

Pursuant to paragraph 221 (1)(d) of the Income Tax Act, payments made by Crown Corporations under applicable service contracts (including contracts involving a mix of goods and services) must be reported on a "T1204" slip. To comply with this requirement, the Bidder is required to provide the following information on the "Supplier – Direct Payment and Tax Information Form" (see Appendix 11).

By signing this form, the Bidder/Proponent certifies that he/she has examined the information provided on the form and that it is correct, complete, and fully discloses the identification of the Contractor.

This "Supplier – Direct Payment and Tax Information Form" must be completed and returned to the Commission prior to any contract being awarded to your firm (see Appendix 11).

GI04 Quebec Sales Tax

- 1) See GI03.

GI05 Capital Development and Redevelopment Charges

- 1) For the purposes of GC1.8 LAWS, PERMITS AND TAXES in the General Conditions of the Contract, only fees or charges directly related to the processing and issuing of building permits shall be included. The Bidder shall not include any monies in the tender amount for special municipal development, redevelopment or other fees or charges which a municipal authority may seek as a prerequisite to the issuance of building permits.

GI06 Registry and Pre-qualification of Floating Plant

- 1) Dredges or other floating plant to be used in the performance of the Work must be on Canadian registry. For dredges or other floating plant that are not of Canadian make or manufacture, the Bidder must obtain a certificate of qualification from Industry Canada, if applicable, and this certificate must accompany the tender. Plant so qualified by Industry Canada may be accepted on this project.

GI07 Listing of Subcontractors and Suppliers

- 1) Notwithstanding any list of Subcontractors that the Bidder shall be required to submit as part of the tender, the Bidder submitting the lowest acceptable tender shall, within 24 hours of receipt of a notice to do so, submit all information requested in the said notice including the names of Subcontractors and Suppliers for the part or parts of the Work listed. Failure to do so may result in the disqualification of its tender.

GI08 Tender Security Requirements

- 1) The Bidder shall submit tender security with the tender in the form of a bid bond or a security deposit in an amount that is equal to not less than 10% of the tender amount including all applicable taxes.

The maximum amount of tender security required with any tender is \$2,000,000.00.

- 2) A bid bond shall be in an approved form, properly completed, with original signature(s) and issued by an approved company whose bonds are acceptable to the NCC either at the time of solicitation closing or as identified on the list displayed at the following Website:

<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12027>

The approved form for the bid bond is enclosed at the end of this section.

- 3) A security deposit shall be an original, properly completed, signed where required and be either:
 - (a) a bill of exchange, bank draft or money order payable to the NCC;
 - (b) bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada; or
- 4) A bill of exchange, bank draft or money order referred to in subparagraph 3)(a) of GI08 shall be certified by or drawn on:
 - (a) a corporation or institution that is a member of the Canadian Payments Association;
 - (b) a corporation that accepts public deposits and repayment of the deposits is unconditionally guaranteed by Her Majesty in right of a province;
 - (c) a corporation that accepts deposits that are insured by the Canada Deposit Insurance Corporation or the "Régie de l'assurance-dépôts du Québec" to the maximum permitted by law;
 - (d) a corporation, association or federation incorporated or organized as a credit union or cooperative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137 (6)(b) of the *Income Tax Act*; or
 - (e) Canada Post Corporation.
- 5) If a bill of exchange, bank draft or money order is drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in paragraph 4) of GI08, either by letter or by a stamped certification on the bill of exchange, bank draft, or money order.
- 6) For the purposes of this section, a bill of exchange is an unconditional order in writing signed by the Bidder and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable time, a certain sum of money to, or to the order of, the NCC.

- 7) Bonds referred to in subparagraph 3)(b) of GI08 shall be provided on the basis of their market value current at the date of solicitation closing, and shall be:
 - (a) payable to bearer;
 - (b) accompanied by a duly executed instrument of transfer of the bonds to the NCC in the form prescribed by the Domestic Bonds of Canada Regulations; or
 - (c) registered as to principal or as to principal and interest in the name of the NCC pursuant to the Domestic Bonds of Canada Regulations.
- 8) As an alternative to a security deposit an irrevocable standby letter of credit is acceptable to the NCC and the amount shall be determined in the same manner as a security deposit referred to above.
- 9) An irrevocable standby letter of credit referred to in paragraph 8) of GI08 shall:
 - (a) be an arrangement, however named or described, whereby a financial institution (the “Issuer”) acting at the request and on the instructions of a customer (the “Applicant) or on its own behalf:
 - (i) is to make a payment to, or to the order of, the NCC as the beneficiary;
 - (ii) is to accept and pay bills of exchange drawn by the NCC;
 - (iii) authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or
 - (iv) authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with.
 - (b) state the face amount which may be drawn against it;
 - (c) state its expiry date;
 - (d) provide for sight payment to the NCC by way of the financial institution’s draft against presentation of a written demand for payment signed by the NCC Contract Administrator identified in the letter of credit by his/her office;
 - (e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;
 - (f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600;
 - (g) clearly specify that it is irrevocable or deemed to be irrevocable pursuant to article 6 c) of the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600; and
 - (h) be issued or confirmed, in either official language, by a financial institution which is a member of the Canadian Payments Association and is on the letterhead of the Issuer or Confirmer. The format is left to the discretion of the Issuer or Confirmer.
- 10) Tender security shall lapse or be returned as soon as practical following:
 - (a) the solicitation closing date, for those Bidders submitting non-compliant tenders; and

- (b) the administrative tender review, for those Bidders submitting compliant tenders ranked fourth to last on the schedule of tenders; and
 - (c) the award of contract, for those Bidders submitting the second and third ranked tenders; and
 - (d) the receipt of contract security for the successful Bidder; or
 - (e) the cancellation of the solicitation, for all Bidders.
- 11) Notwithstanding the provisions of paragraph 10) of GI08 and provided more than three (3) compliant tenders have been received, if one or more of the tenders ranked third to first is withdrawn or rejected for whatever reason, then the NCC reserves the right to hold the security of the next highest ranked compliant tender in order to retain the tender security of at least three (3) valid and compliant tenders.

GI09 Submission of Tender

- 1) The Invitation to Tender and Acceptance Form, duly completed with the bid security, shall be enclosed and sealed in an envelope provided by the Bidder, and shall be addressed and submitted to the office designated on the front page of the Invitation to Tender and Acceptance Form for the receipt of tenders.
- 2) Unless otherwise specified in the Special Instructions to Bidders:
 - (a) the tender shall be in Canadian currency;
 - (b) exchange rate fluctuation protection is not offered; and
 - (c) any request for exchange rate fluctuation protection shall not be considered.
- 3) Prior to submitting the tender, the Bidder shall ensure that the following information is clearly printed or typed on the face of the tender envelope:
 - (a) Solicitation Number;
 - (b) Name of Bidder.
- 5) Timely and correct delivery of the tender is the sole responsibility of the Bidder. The tender must be received on or before the date and time set for solicitation closing. Late tenders shall be disqualified.

GI10 Revision of Tender

- 1) A tender submitted in accordance with these instructions may be revised by letter or facsimile (fax number only 613-239-5012 provided the revision is received at the office designated for the receipt of tenders, on or before the date and time set for the closing of the solicitation. The letter or facsimile shall:
 - (a) be on the Bidder's letterhead or bear a signature that identifies the Bidder;
 - (b) for the Total Bid Amount, clearly identify the amount of the current revision. The total aggregate sum of all revisions submitted, including the current revision, shall be shown separately; and
 - (c) for the Price per unit portion of a tender, clearly identify the current revision(s) to the Price(s) per unit and the specific item(s) to which each revision applies. If a revision is to be applied to a specific Item that was previously amended then, in addition to the amount of the current

revision, the total aggregate sum of all revisions submitted, including the current revision, for that Item shall be shown separately.

- 2) A letter or facsimile submitted to confirm an earlier revision shall be clearly identified as "CONFIRMATION ONLY", for each contemplated change.
- 3) Failure to comply with any of the above provisions shall result in the rejection of the non-compliant revision(s) only. The tender shall be evaluated based on the original tender submitted and all other compliant revision(s).

GI11 Acceptance of Tender

- 1) The NCC may accept any tender, whether it is the lowest or not, or may reject any or all tenders.
- 2) Without limiting the generality of paragraph 1) of GI11, the NCC may reject a tender if any of the following circumstances are present:
 - (a) the Bidder, or any employee or subcontractor included as part of the tender, have been convicted under section 121 ("Frauds on the government" & "Contractor subscribing to election fund"), 124 ("Selling or purchasing office"), 380 (Fraud committed against Her Majesty) or 418 ("Selling defective stores to Her Majesty") of the Criminal Code of Canada, or under paragraph 80(1)(d) (False entry, certificate or return), subsection 80(2) (Fraud against her Majesty) or Section 154.01 (Fraud against her Majesty) of the Financial Administration Act;
 - (b) the Bidder's bidding privileges are suspended or are in the process of being suspended;
 - (c) the bidding privileges of any employee or subcontractor included as part of the tender are suspended or are in the process of being suspended, which suspension or pending suspension would render that employee or subcontractor ineligible to tender on the Work, or the portion of the Work the employee or subcontractor is to perform;
 - (d) with respect to current or prior transactions with the NCC
 - (i) the Bidder is bankrupt or if, for whatever reason, its activities are rendered inoperable for an extended period;
 - (ii) evidence, satisfactory to the NCC, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Bidder, any of its employees or any subcontractor included as part of its tender;
 - (iii) the NCC has exercised, or intends to exercise, the contractual remedy of taking the work out of the contractor's hands with respect to a contract with the Bidder, any of its employees or any subcontractor included as part of its tender; or
 - (iv) the NCC determines that the Bidder's performance on other contracts is sufficiently poor to jeopardize the successful completion of the requirement being tendered on.
- 3). In assessing the Bidder's performance on other contracts pursuant to subparagraph 2)(d)(iv) of GI11, the NCC may consider, but not be limited to, such matters as:
 - (a) the quality of workmanship in performing the Work;
 - (b) the timeliness of completion of the Work;

- (c) the overall management of the Work and its effect on the level of effort demanded of the NCC and its representative; and
 - (d) the completeness and effectiveness of the Contractor's safety program during the performance of the Work.
- 4) Without limiting the generality of paragraphs 1), 2) and 3) of GI11, the NCC may reject any based on an unfavourable assessment of the:
- (a) adequacy of the tender price to permit the work to be carried out and, in the case of a tender providing prices per unit, whether each such price reasonably reflects the cost of performing the part of the work to which that price applies;
 - (b) Bidder's ability to provide the necessary management structure, skilled personnel, experience and equipment to perform competently the work under the Contract; and
 - (c) Bidder's performance on other contracts.
- 5) If the NCC intends to reject a tender pursuant to a provision of paragraphs 1), 2), 3) or 4) of GI11, other than subparagraph 2)(b) of GI11, the NCC shall so inform the Bidder and provide the Bidder ten (10) days within which to make representation, prior to making a final decision on the tender rejection.
- 6) The NCC may waive informalities and minor irregularities in tenders received, if the NCC determines that the variation of the tender from the exact requirements set out in the Tender Documents can be corrected or waived without being prejudicial to other Bidders.

GI12 Procurement Business Number

- 1) Not applicable.

GI13 Bid Depository

- 1) If the solicitation advertisement states that a Bid Depository shall be used, the Bidder shall obtain bids in accordance with local Bid Depository rules and procedures.

GI14 Compliance with Applicable Laws

- 1) By submission of a tender, the Bidder certifies that the Bidder has the legal capacity to enter into a contract and is in possession of all valid licences, permits, registrations, certificates, declarations, filings, or other authorizations necessary to comply with all federal, provincial and municipal laws and regulations applicable to the submission of the tender and entry into any ensuing contract for the performance of the work.
- 2) For the purpose of validating the certification in paragraph 1) of GI14, a Bidder shall, if requested, provide a copy of every valid licence, permit, registration, certificate, declaration, filing or other authorization listed in the request, and shall provide such documentation within the time limit(s) set out in the said request.
- 3) Failure to comply with the requirements of paragraph 2) of GI14 shall result in the disqualification of the tender.

GI15 Approval of Alternative Materials

- 1) When materials are specified by trade names or trademarks, or by manufacturers' or suppliers' names, the tender shall be based on use of the named materials. During the solicitation period,

alternative materials may be considered provided full technical data is received in writing by the Contracting Officer at least seven (7) calendar days, unless otherwise noted in the Tender documents, prior to the solicitation closing date. If the alternative materials are approved for the purposes of the tender, an addendum to the tender documents shall be issued.

GI16 Performance Evaluation

- 1) Bidders shall take note that the performance of the Contractor during and upon completion of the work shall be evaluated by the NCC. The evaluation shall be based on the quality of workmanship, timeliness of completion of the work, project management, contract management and management of health and safety. Should the Contractor's performance be considered unsatisfactory, the Contractor's bidding privileges on future work may be suspended indefinitely. Contractor Evaluation Report Form is enclosed at the end of this section.

BID BOND

Bond Number _____

Amount \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal, hereinafter called the Principal, and _____ as Surety, hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto the National Capital Commission as Obligee, hereinafter called the NCC, In the amount of _____ dollars (\$ _____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, _____. WHEREAS, the Principal has submitted a written tender to the NCC, dated the _____ day of _____, _____, for: _____.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if:

- (a) The Principal, should his tender be accepted within the period be specified by the NCC, or, if no period be specified, within sixty (60) days after closing date of the tender:
 - 1. does execute within a period specified by the NCC, or, if no period be specified therein, within fourteen (14) days after the prescribed forms are presented to him for signature, execute such further contractual documents, if any, as may be required by the terms of the tender as accepted; and does
 - 2. furnish a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the Contract price and satisfactory to the NCC, or other security acceptable to the NCC; or
- (b) the Principal does pay to the NCC the difference between the amount of the Principal's tender and the amount of the Contract entered into by the NCC for the work, supplies and services which were specified in the said tender, if the latter amount be in excess of the former,

then, this obligation shall be void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that the Surety and the Principal shall not be liable to the NCC for an amount greater than the amount specified in the bond.

PROVIDED FURTHER that the Surety shall not be subject to any suit or action unless such suit or action is instituted and process therefore served upon the Surety at its Head Office in Canada, within twelve (12) months from the date of this bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

Principal _____

Witness _____

Surety _____

Note: Affix Corporate seal if applicable.



**CONTRACTOR PERFORMANCE EVALUATION REPORT FORM
FORMULAIRE - RAPPORT D'ÉVALUATION DU RENDEMENT DE L'ENTREPRENEUR**

Date		Contract no. / No du contrat	
Description of work / Description des travaux			
Contractor's business name / Nom de l'entreprise de l'entrepreneur		Contractor's site superintendent / Contremaître de l'entrepreneur	
Contractor's business address / Adresse de l'entreprise de l'entrepreneur			
NCC representative / Représentant de la CCN			
Name / Nom		Telephone no. / N ^o . de téléphone	E-mail address / Adresse électronique
Contract information / Information sur le contrat			
Contract award amount / Montant du marché adjugé		Contract award date / Date de l'adjudication du marché	
Final amount / Montant final		Actual contract completion date / Date réelle d'achèvement du contrat	
Number of change orders / Nombre d'ordres de changement		Final certificate date / Date du certificat final	
Quality of workmanship / Qualité des travaux exécutés			
<p>This is the rating of the quality of the workmanship. At final completion the quality of the materials and equipment incorporated in the work must meet the requirements set out in the plans and specifications.</p> <p>Il s'agit de l'évaluation de la qualité des travaux exécutés. À l'achèvement des travaux, la qualité des matériaux et de l'équipement doit satisfaire les exigences établies dans les plans et devis.</p>	Unacceptable / Inacceptable	0 – 5	<input type="text"/>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Supérieur	17 – 20	
Time / Délai d'exécution			
<p>This is the rating of the timeliness of completion considering the actual completion date compared with the original (or amended) contract completion date and allowing for conditions beyond the control of the contractor.</p> <p>Il s'agit de l'évaluation du délai d'exécution des travaux en prenant en considération la date actuelle d'achèvement des travaux par rapport à la date originale (ou modifiée) et en tenant compte des conditions indépendantes de la volonté de l'entrepreneur.</p>	Unacceptable / Inacceptable	0 – 5	<input type="text"/>
	Late / En retard	6 – 10	
	On time / À temps	11 – 16	
	Ahead of schedule / En avance sur le calendrier	17 – 20	
Project management / Gestion de projet			
<p>This is the rating of how the project, as described in the drawings and specifications, was managed including co-ordination, quality control, effective schedule development and implementation.</p> <p>Voici l'évaluation de la façon dont le projet décrit dans les documents contractuels a été géré, y compris la coordination, le contrôle de la qualité, l'élaboration d'un calendrier efficace et la mise en œuvre.</p>	Unacceptable / Inacceptable	0 – 5	<input type="text"/>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Supérieur	17 – 20	
		Criteria not applicable / Critère non-applicable	<input type="checkbox"/> N/A / S/O
Contract management / Gestion de contrat			
<p>This is the rating of how the contract was administered in accordance with the provisions expressed in the "front end" portion of the documents.</p> <p>Voici l'évaluation de la façon dont le contrat a été administré conformément aux dispositions comprises dans la partie « prioritaire » des documents.</p>	Unacceptable / Inacceptable	0 – 5	<input type="text"/>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Satisfaisant	17 – 20	
		Criteria not applicable / Critère non-applicable	<input type="checkbox"/> N/A / S/O
Health and safety / Santé et sécurité			
<p>This is the rating of the effectiveness of how the occupational health and safety provisions (whether identified in the contract or those of provincial legislation or those otherwise applicable) were managed and administered.</p> <p>Voici l'évaluation de l'efficacité avec laquelle les dispositions relatives à la santé et à la sécurité au travail (dans le contrat, dans les règlements provinciaux ou dans tout autre document) ont été gérées et administrées.</p>	Unacceptable / Inacceptable	0 – 5	<input type="text"/>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Satisfaisant	17 – 20	
Total points / Pointage total			/100
Comments / Commentaires			
Name / Nom		Title / Titre	Signature
			Date

INSTRUCTIONS AND ADDITIONAL INFORMATION (Contractor Performance Evaluation Report)
INSTRUCTIONS ET RENSEIGNEMENTS SUPPLÉMENTAIRES (Rapport d'évaluation du rendement de l'entrepreneur)

QUALITY OF WORKMANSHIP – QUALITÉ DES TRAVAUX EXÉCUTÉS

The NCC representative is to consider how the workmanship compares with:

- the norms in the area in which the work was carried out
- the contractor's compliance with any quality provisions outlined in the drawings and specification
- the quality of workmanship provided by other contractors on similar projects in the same facility/facilities

Le représentant de la CCN doit évaluer la qualité de l'exécution en fonction de ce qui suit :

- le respect des normes s'appliquant aux travaux réalisés
- la conformité de l'entrepreneur aux exigences de qualité comprises dans les dessins et dans les devis
- la qualité de l'exécution des travaux accomplis par d'autres entrepreneurs dans le cadre de projets similaires réalisés dans la même installation ou dans des installations semblables.

TIME / DÉLAIS D'EXÉCUTION

For the purpose of evaluation the contractor's time performance, consideration must be given to conditions beyond the contractor's control including NCC / Consultant / Client performance.

Afin d'évaluer le rendement de l'entrepreneur en matière de délai d'exécution, on doit prendre en considération les conditions indépendantes de la volonté de l'entrepreneur, y compris le rendement de la CCN, de l'expert-conseil et du client.

Consider conditions beyond the contractor's control, e.g.,

Prendre en considération les conditions indépendantes de la volonté de l'entrepreneur, par exemple :

- availability of, and access to the site
- changes in soil or site conditions
- weather extremes
- strikes
- material / equipment supply problems originating from manufacturers/suppliers
- quality of plans and specifications
- major change(s) in scope
- cumulative effect of changes
- was the NCC able to meet its obligations?
- timely decisions, clarifications, approvals, payments in due time
- delays caused by other contractors in the same facility

- disponibilité du chantier et accès au chantier
- modifications des conditions du sol ou du chantier
- température
- grèves
- problèmes d'approvisionnement en matériel et en équipement provenant des manufacturiers/fournisseurs
- qualité des plan et devis
- modifications importantes à l'étendue des travaux
- effets cumulatifs des modifications
- la CCN a-t-elle été capable de remplir ses obligations?
- décisions, clarifications, approbations, paiements en temps opportun
- les retards occasionnés par d'autres entrepreneurs travaillant dans la même installation.

The NCC representative's estimate of a reasonable maximum time allowance resulting from conditions beyond the contractor's control is
 L'estimation, par le représentant de la CCN, du temps maximum alloué pour les conditions indépendantes de la volonté de l'entrepreneur est



The period of delay attributable to the contractor is
 La période de retard attribuable à l'entrepreneur est



Did the contractor make an effective effort / Est-ce que l'entrepreneur s'est efforcé :

- to meet the schedule / de respecter l'échéancier des travaux
- to clean up deficiencies in a reasonable time / de corriger les vices dans un délai raisonnable

▶	<input type="checkbox"/>	Yes Oui	<input type="checkbox"/>	No Non
▶	<input type="checkbox"/>	Yes Oui	<input type="checkbox"/>	No Non

Have you recommended assessments and damages for late completion under the contract?
 Avez-vous recommandé des dédommagements pour retard d'exécution aux termes du marché?

▶	<input type="checkbox"/>	Yes Oui	<input type="checkbox"/>	No Non
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PROJECT MANAGEMENT / GESTION DU PROJET

The extent to which the contractor takes charge of and effectively manages the work has a direct effect on the inputs required of the NCC.

La mesure dans laquelle l'entrepreneur assume efficacement la gestion des travaux a une incidence directe sur les services qu'on attend de la CCN.

Consideration should be given to: Did the contractor

Il faut examiner si l'entrepreneur a :

- employ a knowledgeable site superintendent
- required additional input from the NCC staff above that which is normal for a project of similar size and nature
- promptly commence the work
- provide realistic schedules and updates in accordance with the terms of the contract
- provide a comprehensive work plan and adhere to its milestones
- order material promptly and in such a way as to expedite the progress of the work
- provide shop drawings promptly and were they of sufficient detail

- fait appel aux services d'un surintendant de chantier expérimenté
- demandé au personnel de la CCN une plus grande contribution que ce qui est normal pour un projet de cette importance et de cette nature
- commencé les travaux dans les plus brefs délais
- fourni un calendrier réaliste et des mises à jour conformément aux modalités du contrat
- présenté un plan de travail complet et a respecté les échéances
- commandé le matériel rapidement et de façon à accélérer l'avancement des travaux.
- fourni rapidement des dessins d'atelier comprenant suffisamment de détails

PROJECT MANAGEMENT (cont'd) / GESTION DU PROJET (suite)

- effectively manage and complete all Division 1 work site activities
- promptly provide reasonable quotations for changes to the original scope of work
- cooperate when issued directions by the NCC representative
- interpret the contract documents accurately
- establish effective quality control procedures
- effectively coordinate and manage the work of its subcontractors
- promptly correct defective work as the project progressed
- promptly clean-up all deficiencies and incomplete work after issuance of the Interim Certificate of Completion
- satisfactorily clean the work site periodically and at the completion of the project
- g r  et achev  efficacement toutes les activit s sur le chantier de la Division 1
- propos  rapidement des prix raisonnables pour les modifications   l' nonc  des travaux initial
- accept  les directives du repr sentant de la CCN
- interpr t  les documents contractuels avec exactitude
- mis en place des proc dures de contr le de la qualit  efficaces
- coordonn  et g r  efficacement les travaux confi s   des sous-traitants
- corrig  promptement le travail d fectueux en cours de projet
- corrig  rapidement les travaux non acceptables et termin  les travaux incomplets apr s r ception du certificat provisoire d'ach vement
- nettoy  de fa on satisfaisante le chantier p riodiquement ainsi qu'  la fin du projet.

CONTRACT MANAGEMENT / GESTION DU CONTRAT

The effectiveness of the contractor to administer the contract in accordance with the provisions expressed in the "front end" portion of the contract documents.

Consideration should be given to: Did the contractor

- in the time frame specified, provide its contract security, Insurance Certificate fully executed and WSIB form where applicable
- submit progress claims in the correct format, accurately representing the work successfully completed and material delivered to the site but not yet installed for each payment period
- submit a Statutory Declaration correctly completed with each progress claim
- submit an updated Schedule if so specified
- pay subcontractors and suppliers in a timely fashion in accordance with the terms and conditions of its subcontracts
- promptly appoint a competent site superintendent
- notify the NCC representative of all its subcontracting activities
- apply for, obtain and pay for all necessary permits, licenses and certificates
- cooperate with other contractors sent onto the site of the work
- remove a superintendent or unsuitable worker when requested by the NCC representative to do so
- effectively protect the work and the contract documents provided by the NCC
- comply with all warranty provisions up to the date of the Contractor Performance Evaluation Report Form (CPERF)
- effectively manage the site during a suspension or termination of the work to mitigate any additional costs to the NCC
- deal promptly with any claims from creditors
- maintain complete records of the project
- provide information promptly when requested to do so
- expedite and co-operate in the settlement of all disputes

Efficacit  avec laquelle l'entrepreneur a administr  le contrat conform ment aux dispositions continues dans la partie « prioritaire » des documents contractuels.

Il faut examiner si l'entrepreneur a :

- fourni, dans le d lai prescrit, une garantie contractuelle, un certificat d'assurance d ment sign s et le formulaire de la CSST, le cas  ch ant
- pr sent  des r clamations p riodiques dans le bon format, en d crivant avec pr cision les travaux ex cut s et le mat riel livr  sur le chantier mais non encore install , pour chaque p riode de paiement
- pr sent  une d claration solennelle correctement remplie avec chaque r clamation p riodique
- fourni un calendrier   jour, sur demande
- pay  rapidement les sous-traitants et les fournisseurs conform ment aux conditions des contrats de sous-traitance
- d sign  dans les plus brefs d lais un surintendant de chantier qualifi 
- tenu au courant le repr sentant de la CCN de toutes les activit s de sous-traitance
- demand , obtenu et pay  tous les permis, licences et certificats n cessaires
- collabor  avec les autres entrepreneurs envoy s sur le lieu des travaux
- remplac  un surintendant ou un travailleur inapte   la demande du repr sentant de la CCN
- prot g  efficacement les travaux et les documents relativement aux travaux et au contrat fournis par la CCN
- respect  toutes les dispositions de garantie jusqu'  la date du Formulaire Rapport d' valuation du rendement de l'entrepreneur (FRERE)
- g r  efficacement le chantier pendant une suspension des travaux ou lors de leur ach vement, afin de limiter tout c t  suppl mentaire pour la CCN
- trait  dans les plus brefs d lais les demandes de paiement des cr anciers
- tenu des dossiers complets sur le projet
- fourni promptement les renseignements demand s
- acc l re et coop re dans le r glement des diff rends

HEALTH AND SAFETY / SANTÉ ET SÉCURITÉ

The effectiveness to which the contractor managed and administered the occupational health and safety provisions as stipulated in the contract documents and those required by provincial legislation or those that would otherwise be applicable to the site of the work.

Consideration should be given to: Did the contractor

- provide the NCC with a copy of its health and safety program prior to award of contract
- provide the NCC with a copy of its site specific hazardous assessment prior to award of contract
- apply for and obtain the provincial Notice of Project prior to commencement of the work
- apply for and obtain the Building Permit prior to commencement of the work
- provide a competent superintendent who
 - is qualified in health and safety matters because of her/his knowledge, training and experience
 - is familiar with the OH&S Act and its Regulations that apply to the site of the work
 - remedies any potential or actual danger of health and safety to those employed at the work site
- respond in a timely manner to any non-compliance safety issues noted by the NCC or a representative of the authority having jurisdiction
- implement its safety program in a proactive manner

Efficacité avec laquelle l'entrepreneur a géré et administré les dispositions relatives à la santé et à la sécurité au travail telles que stipulées dans les documents contractuels et dans les règlements provinciaux ou ceux s'appliquant normalement au lieu des travaux.

Il faut examiner si l'entrepreneur a :

- fourni à la CCN une copie de son programme en matière de santé et de sécurité avant l'octroi du contrat
- fourni à la CCN une copie de son évaluation des dangers pouvant survenir sur les lieux avant l'octroi du contrat
- demandé et obtenu l'avis de projet provincial avant le début des travaux
- demandé et obtenu le permis de construction avant le début des travaux
- engagé un surintendant qui :
 - est qualifié en matière de santé et de sécurité de par ses connaissances, sa formation et son expérience
 - connaît bien les dispositions de la Loi sur la santé et la sécurité au travail et de son règlement qui s'applique sur le lieu des travaux
 - remédie à tout danger possible ou réel en matière de santé et de sécurité pouvant toucher toutes les personnes travaillant sur le lieu des travaux
- traité rapidement tous les problèmes de non-conformité à la sécurité relevés par la CCN ou par un représentant de l'autorité qui a juridiction
- mis en œuvre son programme de sécurité de façon proactive

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GC1.1 INTERPRETATION

GC1.1.1 Headings and References

- 1) The headings in the contract documents, other than those in the drawings and specifications, form no part of the Contract but are inserted for convenience of reference only.
- 2) A reference made to a part of the Contract by means of numbers preceded by letters is a reference to the particular part of the Contract that is identified by that combination of letters and numbers and to any other part of the Contract referred to therein.
- 3) A reference to a paragraph or subparagraph followed by an identifying number, letter or combination thereof is, unless specifically stated otherwise, a reference to the paragraph or subparagraph that forms part of the clause within which the reference is made.

GC1.1.2 Terminology

- 1) In the Contract

"Contract" means the contract documents referred to as such therein and every other document specified or referred to in any of them as forming part of the Contract, all as amended by agreement of the parties;

"Contract Amount" means the amount set out in the Contract to be payable to the Contractor for the Work, subject to the terms and conditions of the Contract;

"Contract Security" means any security given by the Contractor to the NCC in accordance with the Contract;

"Contractor" means the person contracting with the NCC to provide or furnish all labour, Material and Plant for the execution of the Work under the Contract, and includes the Contractor's superintendent as designated in writing to the NCC;

"Certificate of Completion" means a certificate issued by the NCC when the Work reaches Completion;

"Certificate of Measurement" means a certificate issued by the NCC certifying the correctness of the final quantities, prices per unit and values of labour, Plant and Material performed, used and supplied by the Contractor for the construction of the part of the Work to which a Unit Price Arrangement applies;

"Certificate of Substantial Performance" means a certificate issued by the NCC when the Work reaches Substantial Performance;

"NCC Representative" means the person designated in the Contract, or by written notice to the Contractor, to act as the NCC Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the NCC Representative to the Contractor;

"herein", "hereby", "hereof", "hereunder" and similar expressions refer to the Contract as a whole and not to any particular section or part thereof;

"Lump Sum Arrangement" means that part of the Contract that prescribes a lump sum as payment for performance of the Work to which it relates;

"Material" includes all commodities, articles, machinery, equipment, fixtures and things required to be furnished in accordance with the Contract for incorporation into the Work;

"NCC" means the National Capital Commission;

"Person" also includes, unless there is an express stipulation in the Contract to the contrary, any partnership, proprietorship, firm, joint venture, consortium or corporation;

"Plant" includes all tools, implements, machinery, vehicles, structures, equipment, articles and things that are necessary for the performance of the Contract, other than Material and those tools customarily provided by a tradesperson in practicing a trade;

"Security screening" is a generic term that applies to all types and levels of personnel security screening including Reliability Status, Site Access, and CONFIDENTIAL, SECRET and TOP SECRET security clearances conducted by the NCC;

"Sensitive Information and Assets" means information or assets that have been identified by the NCC as TOP SECRET, SECRET, CONFIDENTIAL or protected;

"Subcontractor" means a person having a direct contract with the Contractor, subject to GC3.6 SUBCONTRACTING, to perform a part or parts of the Work, or to supply Material customized for the Work;

"Superintendent" means the employee or representative of the Contractor designated by the Contractor to act pursuant to GC2.6 SUPERINTENDENT;

"Supplementary Conditions" means the part of the Contract that amends or supplements the General Conditions;

"Supplier" means a person having a direct contract with the Contractor to supply Plant or Material not customized for the Work;

"Unit Price Arrangement" means that part of the Contract that prescribes the product of a price per unit of measurement multiplied by a number of units of measurement for performance of the Work to which it relates;

"Unit Price Table" means the table of prices per unit set out in the Contract;

"Work" means, subject only to any express stipulation in the Contract to the contrary, everything that is necessary to be done, furnished or delivered by the Contractor to perform the Contract in accordance with the contract documents; and

"Working Day" means a day other than a Saturday, Sunday, or a statutory holiday that is observed by the construction industry in the area of the place of the Work.

GC1.1.3 Application of Certain Provisions

- 1) Any provisions of the Contract that are expressly stipulated to be applicable only to a Unit Price Arrangement are not applicable to any part of the Work to which a Lump Sum Arrangement applies.
- 2) Any provisions of the Contract that are expressly stipulated to be applicable only to a Lump Sum Arrangement are not applicable to any part of the Work to which a Unit Price Arrangement applies.

GC1.1.4 Substantial Performance

- 1) The Work shall be considered to have reached Substantial Performance when:
 - (a) the Work or a substantial part thereof has passed inspection and testing and is, in the opinion of the NCC, ready for use by the NCC or is being used for the intended purposes; and
 - (b) the Work is, in the opinion of the NCC, capable of completion or correction at a cost of not more than
 - (i) 3% of the first \$500,000;
 - (ii) 2% of the next \$500,000; and
 - (iii) 1% of the balanceof the Contract Amount at the time this cost is calculated.
- 2) Where the Work or a substantial part thereof is ready for use or is being used for the purposes intended and:
 - (a) the remainder of the Work or a part thereof cannot be completed by the time specified in the Contract, or as amended in accordance with GC6.5 DELAYS AND EXTENSION OF TIME, for reasons beyond the control of the Contractor; or
 - (b) the NCC and the Contractor agree not to complete a part of the Work within the specified time;

the cost of that part of the Work that was either beyond the control of the Contractor to complete or the NCC and the Contractor have agreed not to complete by the time specified, shall be deducted from the value of the Contract referred to in subparagraph 1)(b) of GC1.1.4, and the said cost shall not form part of the cost of the Work remaining to be done in determining Substantial Performance.

GC1.1.5 Completion

- 1) The Work shall be deemed to have reached Completion when all labour, Plant and Material required have been performed, used or supplied, and the Contractor has complied with the Contract and all orders and directions made pursuant thereto, all to the satisfaction of the NCC.

GC1.2 CONTRACT DOCUMENTS**GC1.2.1 General**

- 1) The contract documents are complementary, and what is required by any one shall be as binding as if required by all.
- 2) References in the contract documents to the singular shall be considered to include the plural as the context requires.
- 3) Nothing contained in the contract documents shall create a contractual relationship between the NCC and any Subcontractor or Supplier, their subcontractors or suppliers, or their agents or employees.

GC1.2.2 Order of Precedence

- 1) In the event of any discrepancy or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:
 - (a) any amendment or variation of the contract documents that is made in accordance with the General Conditions;
 - (b) any amendment issued prior to tender closing;
 - (c) Supplementary Conditions;
 - (d) General Conditions;
 - (e) the duly completed Invitation to Tender and Acceptance Form when accepted;
 - (f) drawings and specifications.

later dates shall govern within each of the above categories of documents.

- 2) In the event of any discrepancy or conflict in the information contained in the drawings and specifications, the following rules shall apply:
 - (a) specifications shall govern over drawings;
 - (b) dimensions shown in figures on a drawings shall govern where they differ from dimensions scaled from the same drawing; and
 - (c) drawings of larger scale govern over those of smaller scale.

GC1.2.3 Security and Protection of Documents and Work

- 1) The Contractor shall guard and protect all sensitive contract information (TOP SECRET, SECRET, CONFIDENTIAL and PROTECTED) including printed and digital documents, drawings, information, models, copies thereof and processing systems, whether supplied by the NCC or the Contractor, against loss or compromise and damage from any cause.
- 2) The Contractor shall limit access to sensitive NCC information only to those with a “need-to-know” and who have been successfully security screened to at least the level of sensitivity of the information.
- 3) The Contractor shall ensure all contract information indicated in paragraph 1) is guarded and protected by any subcontractors, agents or suppliers and access limited only to those with a “need-to-know” and who have been successfully security screened to at least the level of sensitivity of the information.
- 4) The Contractor shall keep confidential all information provided to the Contractor by or on behalf of the NCC in connection with the Work, and all information developed by the Contractor as part of the Work, and shall not disclose any such information to any person without the written permission of the NCC, except that the Contractor may disclose to a subcontractor, authorized in accordance with the Contract, information necessary to the performance of a subcontract. This section does not apply to any information that:
 - (a) is publicly available from a source other than the Contractor; or
 - (b) is or becomes known to the Contractor from a source other than the NCC, except any source that is known to the Contractor to be under an obligation to the NCC not to disclose the information.
- 5) When the Contract, the Work, or any information referred to in paragraph 4) is identified as TOP SECRET, SECRET, CONFIDENTIAL or PROTECTED by the NCC, the Contractor shall, at all times, take all measures reasonably necessary for the safeguarding of the material so identified, including such measures as may be further specified elsewhere in the Contract or provided, in writing, from time to time by the NCC.
- 6) Without limiting the generality of paragraphs 4) and 5) of GC1.2.3, when the Contract, the Work, or any information referred to in paragraph 4) is identified as TOP SECRET, SECRET, CONFIDENTIAL or PROTECTED by the NCC, the NCC shall be entitled to inspect the Contractor's premises and the premises of its subcontractors or suppliers and any other person at any tier, for security purposes at any time during the term of the Contract, and the Contractor shall comply with, and ensure that any such subcontractors or suppliers comply with all written instructions issued by the NCC dealing with the material so identified, including any requirement that employees of the Contractor and its subcontractors and suppliers and any other person at any tier execute and deliver declarations relating to reliability status, site access security clearances and other procedures.
- 7) The Contractor shall report any suspected or actual security incidents immediately to the NCC involving loss, compromise or damage of NCC information or assets.
- 8) The Contractor shall safeguard the Work and the Contract, the specifications, drawings and any other information provided by the NCC to the Contractor, and shall be liable to the NCC for any loss or damage from any causes.

GC1.3 STATUS OF THE CONTRACTOR

- 1) The Contractor is engaged under the Contract as an independent contractor.
- 2) The Contractor, its subcontractors and suppliers and any other person at any tier and their employees are not engaged by the Contract as employees, servants or agents of the NCC.
- 3) For the purposes of the contract the Contractor shall be solely responsible for any and all payments and deductions required to be made by law including those required for Canada or Quebec Pension Plans, Employment Insurance, Worker's Compensation, provincial health or insurance plans, and Income Tax.

GC1.4 RIGHTS AND REMEDIES

- 1) Except as expressly provided in the Contract, the duties and obligations imposed by the Contract and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

GC1.5 TIME OF THE ESSENCE

- 1) Time is of the essence of the Contract.

GC1.6 INDEMNIFICATION BY CONTRACTOR

- 1) The Contractor shall pay all royalties and patent fees required for the performance of the Contract and, at the Contractor's expense, shall defend all claims, actions or proceedings against the NCC charging or claiming that the Work or any part thereof provided or furnished by the Contractor to the NCC infringes any patent, industrial design, copyright trademark, trade secret or other proprietary right enforceable in Canada.
- 2) The Contractor shall indemnify and save the NCC harmless from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings by any third party, brought or prosecuted and in any manner based upon, arising out of, related to, occasioned by, or attributable to the activities of the Contractor, its subcontractors and suppliers and any other person at any tier, in performing the Work.
- 3) For the purposes of paragraph 2) of GC1.6, "activities" means any act improperly carried out, any omission to carry out an act and any delay in carrying out an act.

GC1.7 INDEMNIFICATION BY THE NCC

- 1) Subject to the Crown Liability and Proceedings Act, the Patent Act, and any other law that affects the NCC's rights, powers, privileges or obligations, the NCC shall indemnify and save the Contractor harmless from and against all claims, demands, losses, costs, damage, actions, suits or proceedings arising out of the Contractor's activities under the Contract that are directly attributable to:
 - (a) a lack of or a defect in the NCC's title to the Work site if owned by the NCC, whether real or alleged; or
 - (b) an infringement or an alleged infringement by the Contractor of any patent of invention or any other kind of intellectual property occurring while the Contractor was performing any act for the purposes of the Contract employing a model, plan or design or any other thing related to the Work that was supplied by the NCC to the Contractor.

GC1.8 LAWS, PERMITS AND TAXES

- 1) The Contractor shall comply with all federal, provincial and municipal laws and regulations applicable to the performance of the Work or any part thereof including, without limitation, all laws concerning health and labour conditions and the protection of the environment, and shall require compliance therewith by all of its subcontractors and suppliers at any tier as if the Work were being performed for an owner other than the NCC. The Contractor shall furnish evidence of compliance with such laws and regulations to the NCC at such times as the NCC may reasonably request.
- 2) Unless stipulated otherwise in the Contract, the Contractor shall obtain and maintain all permits, certificates, licences, registrations and authorizations required for the lawful performance of the Work.
- 3) Prior to the commencement of the Work at the site, the Contractor shall tender to a municipal authority an amount equal to all fees and charges that would be lawfully payable to that municipal authority in respect of building permits as if the Work were being performed for an owner other than the NCC.
- 4) Within 10 days of making a tender pursuant to paragraph 3) of GC1.8, the Contractor shall notify the NCC of the amount properly tendered and whether or not the municipal authority has accepted that amount.
- 5) If the municipal authority has not accepted the amount tendered, the Contractor shall pay that amount to the NCC within 6 days after the time stipulated in paragraph 4) of GC1.8.
- 6) For the purposes of this clause, "municipal authority" means any authority that would have jurisdiction respecting permission to perform the Work if the owner were not the NCC.
- 7) Notwithstanding the residency of the Contractor, the Contractor shall pay any applicable tax arising from or related to the performance of the Work under the Contract.
- 8) In accordance with the Statutory Declaration referred to in paragraph 4) of GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK, a Contractor who has neither residence nor place of business in the province or territory in which work under the Contract is being performed shall provide the NCC with proof of registration with the provincial sales tax authorities in the said province.
- 9) For the purpose of the payment of any applicable tax or the furnishing of security for the payment of any applicable tax arising from or related to the performance of the Work, and notwithstanding the provision that all Material, Plant and interest of the Contractor in all real property, licences, powers and privileges, become the property of the NCC after the time of purchase in accordance with GC3.10 MATERIAL PLANT AND REAL PROPERTY BECOME PROPERTY OF THE NCC, the Contractor shall be liable, as a user or consumer, for the payment or for the furnishing of security for the payment of any applicable tax payable, at the time of the use or consumption of that Material, Plant or interest of the Contractor in accordance with the relevant legislation.

GC1.9 WORKERS' COMPENSATION

- 1) Prior to award of contract, at the time of submitting its first progress claim, at the time of Substantial Performance of the Work, and prior to issuance of the Certificate of Completion, the Contractor shall provide evidence of compliance with workers' compensation legislation applicable to the place of the Work, including payments due thereunder.

- 2) At any time during the term of the Contract, when requested by the NCC, the Contractor shall provide such evidence of compliance by the Contractor, its subcontractors and any other person at any tier and any other person performing part of the Work who is required to comply with such legislation.

GC1.10 NATIONAL SECURITY

- 1) If the NCC determines that the Work is of a class or kind that involves national security, the NCC may order the Contractor to:
 - (a) provide the NCC with any information concerning persons employed or to be employed by the Contractor for purposes of the Contract; and
 - (b) remove any person from the site of the Work if, in the opinion of the NCC, that person may be a risk to the national security;and the Contractor shall comply with the order.
- 2) In all contracts with persons who are to be employed in the performance of the Contract, the Contractor shall make provision for the performance of any obligation that may be imposed upon the Contractor under paragraph 1) of GC1.10.

GC1.11 UNSUITABLE WORKERS

- 1) The NCC shall instruct the Contractor to remove from the site of the Work any person employed by the Contractor for purposes of the Contract who, in the opinion of the NCC, is incompetent or is guilty of improper conduct, and the Contractor shall not permit a person who has been removed to return to the site of the Work.

GC1.12 PUBLIC CEREMONIES AND SIGNS

- 1) The Contractor shall not permit any public ceremony in connection with the Work without the prior consent of the NCC.
- 2) The Contractor shall not erect nor permit the erection of any sign or advertising on the Work or its site without the prior consent of the NCC.

GC1.13 CONFLICT OF INTEREST

- 1) It is a term of the Contract that no individual, for whom the post-employment provisions of the Conflict of Interest and Post-Employment Code for Public Office Holders or the Values and Ethics Code for the Public Service apply, shall derive a direct benefit from the Contract unless that individual is in compliance with the applicable post-employment provisions.

GC1.14 AGREEMENTS AND AMENDMENTS

- 1) The Contract constitutes the entire and sole agreement between the parties with respect to the subject matter of the Contract and supersedes all previous negotiations, communications and other agreements, whether written or oral, relating to it, unless they are incorporated by reference in the Contract. There are no terms, covenants, representations, statements or conditions binding on the parties other than those contained in the Contract.
- 2) The failure of either party at any time to require performance by the other party of any provision hereof shall not affect the right thereafter to enforce such provision. Nor shall the waiver by either

party of any breach of any covenant, term or condition hereof be taken to be held to be a waiver of any further breach of the same covenant, term or condition.

- 3) The Contract may be amended only as provided for in the Contract.

GC1.15 SUCCESSION

- 1) The Contract shall inure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and, subject to GC1.16 ASSIGNMENT, permitted assigns.

GC1.16 ASSIGNMENT

- 1) The Contractor shall not make any assignment of the Contract, either in whole or in part, without the written consent of the NCC.

GC1.17 NO BRIBE

- 1) The Contractor represents and covenants that no bribe, gift, benefit, nor other inducement has been nor shall be paid, given, promised or offered directly or indirectly to any official or employee of the NCC or to a member of the family of such a person, with a view to influencing the entry into the Contract or the administration of the Contract.

GC1.18 CERTIFICATION - CONTINGENCY FEES

- 1) In this clause:
 - (a) "contingency fee" means any payment or other compensation that is contingent upon or is calculated upon the basis of a degree of success in soliciting or obtaining a Government contract or negotiating the whole or any part of its terms;
 - (b) "employee" means a person with whom the Contractor has an employer/employee relationship; and
 - (c) "person" includes an individual or a group of individuals, a corporation, a partnership, an organization and an association and, without restricting the generality of the foregoing, includes any individual who is required to file a return with the registrar pursuant to section 5 of the Lobbyists Registration Act R.S.C. 1985 c.44 (4th Supplement) as the same may be amended from time to time.
- 2) The Contractor certifies that it has not directly or indirectly paid nor agreed to pay and covenants that it shall not directly or indirectly pay nor agree to pay a contingency fee for the solicitation, negotiation or obtaining of the Contract to any person other than an employee acting in the normal course of the employee's duties.
- 3) All accounts and records pertaining to payments of fees or other compensation for the solicitation, obtaining or negotiation of the Contract shall be subject to the accounts and audit provisions of the Contract.
- 4) If the Contractor certifies falsely under this section or is in default of the obligations contained therein, the NCC may either take the Work out of the Contractor's hands in accordance with the provisions of the Contract or recover from the Contractor by way of reduction to the Contract Amount or otherwise, the full amount of the contingency fee.

GC1.19 INTERNATIONAL SANCTIONS

- 1) Persons and companies in Canada, and Canadians outside of Canada are bound by economic sanctions imposed by the Government of Canada. As a result, the the NCC cannot accept delivery of goods or services that originate, either directly or indirectly, from the countries or persons subject to economic sanctions.

Details on existing sanctions can be found at:

<http://www.dfait-maeci.gc.ca/trade/sanctions-en.asp>.

- 2) It is a condition of the Contract that the Contractor not supply to the NCC any goods or services which are subject to economic sanctions.
- 3) By law, the Contractor must comply with changes to the regulations imposed during the life of the Contract. During the performance of the Contract should the imposition of sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services cause an impossibility of performance for the Contractor, the Contractor may request that the Contract be terminated in accordance with GC7.3 TERMINATION OF CONTRACT.

- GC2.1 NCC REPRESENTATIVE'S AUTHORITY
- GC2.2 INTERPRETATION OF CONTRACT
- GC2.3 NOTICES
- GC2.4 SITE MEETINGS
- GC2.5 REVIEW AND INSPECTION OF WORK
- GC2.6 SUPERINTENDENT
- GC2.7 NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR
- GC2.8 ACCOUNTS AND AUDITS

GC2.1 NCC REPRESENTATIVE'S AUTHORITY

- 1) The NCC shall designate an NCC Representative and shall notify the Contractor of the name, address and telephone number of the NCC Representative.
- 2) The NCC Representative shall perform the NCC's duties and functions under the contract.
- 3) The NCC Representative shall be authorized to issue notices, instructions and directions to the Contractor and to accept on behalf of the NCC any notice, order or other communication from the contractor relating to the Work.
- 4) The NCC Representative shall, within a reasonable time, review and respond to submissions made by the Contractor in accordance with the requirements of the Contract.

GC2.2 INTERPRETATION OF CONTRACT

- 1) If, at any time before the NCC has issued a Certificate of Completion, any question arises between the parties about whether anything has been done as required by the Contract or about what the Contractor is required by the Contract to do, and in particular but without limiting the generality of the foregoing, about:
 - (a) the meaning of anything in the drawings and specifications;
 - (b) the meaning to be given to the drawings and specifications in case of any error therein, omission therefrom, or obscurity or discrepancy in their wording or intention;
 - (c) whether or not the quality or quantity of any Material or workmanship supplied or proposed to be supplied by the Contractor meets the requirements of the Contract;
 - (d) whether or not the labour, Plant or Material performed, used and supplied by the Contractor for performing the Work and carrying out the Contract are adequate to ensure that the Work shall be performed in accordance with the Contract and that the Contract shall be carried out in accordance with its terms;
 - (e) what quantity of any of the Work has been completed by the Contractor; or
 - (f) the timing and scheduling of the various phases of the performance of the Work as specified in the Contract;

the question shall be decided, subject to the provisions of GC8 DISPUTE RESOLUTION, by the NCC.

- 2) The Contractor shall perform the Work in accordance with any decisions of the NCC that are made under paragraph 1) of GC2.2 and in accordance with any consequential directions given by the NCC.

- 3) If the Contractor fails to comply with any instruction or direction issued by the NCC pursuant to the Contract, the NCC may employ such methods as the NCC deems advisable to do what the Contractor failed to do, and the Contractor shall, on demand, pay the NCC an amount that is equal to the aggregate of all costs, expenses and damages incurred or sustained by the NCC by reason of the Contractor's failure to comply with such instruction or direction, including the cost of any methods employed by the NCC in doing what the Contractor failed to do.

GC2.3 NOTICES

- 1) Subject to paragraph 3) of GC2.3, any notice, order or other communication may be given in any manner, and if required to be in writing, shall be addressed to the party to whom it is intended at the address in the Contract or at the last address of which the sender has received written notice in accordance with this section.
- 2) Any notice, order or other communication given in writing in accordance with paragraph 1) of GC2.3 shall be deemed to have been received by either party:
 - (a) if delivered personally, on the day that it was delivered;
 - (b) if forwarded by mail, on the earlier of the day it was received or the sixth day after it was mailed; and
 - (c) if forwarded by facsimile or electronic mail, 24 hours after it was transmitted.
- 3) A notice given under GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS, GC7.2 SUSPENSION OF WORK, and GC7.3 TERMINATION OF CONTRACT shall be given in writing and, if delivered personally, shall be delivered, if the Contractor is a sole proprietor, to the Contractor or, if the Contractor is a partnership or corporation, to an officer thereof.

GC2.4 SITE MEETINGS

- 1) In consultation with the NCC, the Contractor shall arrange site meetings at regular intervals, with all involved parties who are to attend, in order to ensure, among other things, the proper co-ordination of the Work.

GC2.5 REVIEW AND INSPECTION OF WORK

- 1) The NCC shall review the Work to determine if it is proceeding in conformity with the Contract and to record the necessary data to make an assessment of the value of Work completed. The NCC shall measure and record the quantities of labour, Plant and Material performed, used or supplied by the Contractor in performing the Work or any part thereof that is subject to a Unit Price Arrangement and, on request, shall inform the Contractor of those measurements, and permit the Contractor to inspect any records pertaining thereto.
- 2) The NCC shall reject Work or Material which in the NCC's opinion does not conform to the requirements of the Contract, and shall require inspection or testing of Work, whether or not such Work is fabricated, installed, or completed. If such Work is not in accordance with the requirements of the Contract, the Contractor shall correct the Work and shall pay the NCC, on demand, all reasonable costs and expenses that were incurred by the NCC in having the examination performed.
- 3) The Contractor shall provide the NCC with access to the Work and its site at all times, and at all times shall provide sufficient, safe, and proper facilities for the review and inspection of the Work by persons authorized by the NCC and any representatives of those authorities having jurisdiction. If parts of the Work are in preparation at locations other than the site of the Work, the NCC shall be given access to such Work whenever it is in progress.

- 4) The Contractor shall furnish the NCC with such information respecting the performance of the Contract as the NCC may require, and render every possible assistance to enable the NCC to verify that the Work is performed in accordance with the Contract, carry out any other duties and exercise any powers in accordance with the Contract.
- 5) If Work is designated for tests, inspections, or approvals in the Contract or by the NCC's instructions, or by laws or ordinances of the place of the Work, the Contractor shall give the NCC reasonable notice of when such Work shall be ready for review and inspection. The Contractor shall arrange for and shall give the NCC reasonable notice of the date and time of inspections, tests or approvals.
- 6) If the Contractor covers, or permits to be covered, Work that has been designated for tests, inspections or approvals before such tests, inspections or approvals are made, completed or given, the Contractor shall, if so directed by the NCC, uncover such Work, have the inspections, tests or approvals satisfactorily made, completed or given and make good the covering of the Work at the Contractor's expense.

GC2.6 SUPERINTENDENT

- 1) Prior to commencing the Work, the Contractor shall designate a Superintendent and shall notify the NCC of the name, address and telephone number of the Superintendent. The Contractor shall keep the Superintendent at the Work site during working hours until the Work has reached completion.
- 2) The Superintendent shall be in full charge of the operations of the Contractor during the performance of the Work and shall be authorized to accept on behalf of the Contractor any notice, order or other communication given to the Superintendent or the Contractor relating to the Work.
- 3) Upon request of the NCC, the Contractor shall remove any Superintendent who, in the opinion of the NCC, is incompetent or has been guilty of improper conduct, and shall forthwith designate another Superintendent who is acceptable to the NCC.
- 4) The Contractor shall not substitute a Superintendent without the written consent of the NCC. If a Superintendent is substituted without such consent, the NCC shall be entitled to refuse to issue any documentation or certification relating to progress payments, Substantial Performance or Completion of the Work until the Superintendent has returned to the Work site or another Superintendent who is acceptable to the NCC has been substituted.

GC2.7 NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR

- 1) For the purposes of this clause, "persons" include the Contractor, its subcontractors and suppliers at any tier and their respective employees, agents, licensees or invitees and any other individual involved in the performance of the Work or granted access to the Work site. A "person" includes any partnership, proprietorship, firm, joint venture, consortium and corporation.
- 2) Without restricting the provisions of paragraph 3) of GC2.6, SUPERINTENDENT, the Contractor shall not refuse to employ and shall not discriminate in any manner against any person because:
 - (a) of that person's race, national origin, colour, religion, age, sex or marital status;
 - (b) of the race, national origin, colour, religion, age, sex, or marital status of any person having any relationship or association with that person; or
 - (c) a complaint has been made or information has been given by or in respect of that person relating to an alleged failure by the Contractor to comply with subparagraphs 2)(a) and 2)(b) of GC2.7.

- 3) Within two Working Days immediately following receipt of a written complaint pursuant to paragraph 2) of GC2.7, the Contractor shall:
 - (a) cause to have issued a written direction to the person or persons named by the complainant to cease all actions that form the basis of the complaint;
 - (b) forward a copy of the complaint to the NCC by registered mail or courier service; and
 - (c) when the Labour Conditions are applicable under the circumstances of the complaint, forward a copy of the complaint to HRSDC - Labour to the attention of the appropriate Director as described in the Labour Conditions ("HRSDC - Labour" means the labour component of the federal Department of Human Resources and Skills Development).
- 4) Within twenty four (24) hours immediately following receipt of a direction from the NCC to do so, the Contractor shall cause to have removed from the site of the Work and from the performance of Work under the Contract, any person or persons whom the NCC believes to be in breach of the provisions of paragraph 2) of GC2.7.
- 5) No later than thirty (30) days after receipt of the direction referred to in paragraph 4) of GC2.7, the Contractor shall cause the necessary action to be commenced to remedy the breach described in the direction.
- 6) If a direction is issued pursuant to paragraph 4) of GC2.7, the NCC may withhold from monies that are due and payable to the Contractor or setoff pursuant to GC5.9 RIGHT OF SETOFF, whichever is applicable, an amount representing the sum of the costs and payment referred to in paragraph 8) of GC2.7.
- 7) If the Contractor fails to proceed in accordance with paragraph 5) of GC2.7, the NCC shall take the necessary action to have the breach remedied, and shall determine all supplementary costs incurred by the NCC as a result.
- 8) The NCC may make a payment directly to the complainant from monies that are due and payable to the Contractor upon receipt from the complainant of:
 - (a) a written award issued pursuant to the federal Commercial Arbitration Act, R.S.C. 1985, c. 17 (2nd Supp.);
 - (b) a written award issued pursuant to the Canadian Human Rights Act, R.S.C. 1985, c. H-6;
 - (c) a written award issued pursuant to provincial or territorial human rights legislation; or
 - (d) a judgement issued by a court of competent jurisdiction.
- 9) If the NCC is of the opinion that the Contractor has breached any of the provisions of this clause, the NCC may take the Work out of the Contractor's hands pursuant to GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS.
- 10) Subject to paragraph 7) of GC3.6 SUBCONTRACTING, the Contractor shall ensure that the provisions of this clause are included in all agreements and contracts entered into as a consequence of the Work.

GC2.8 ACCOUNTS AND AUDITS

- 1) The Contractor shall, in addition to the requirements expressed in paragraph 6) of GC3.4 EXECUTION OF THE WORK, maintain full records of the Contractor's estimated and actual cost of the Work together with all tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, and shall make them available on request to audit and inspection by the NCC or by persons designated to act on behalf of the NCC.
- 2) The Contractor shall allow any of the persons referred to in paragraph 1) of GC2.8 to make copies of and take extracts from any of the records and material, and shall furnish such persons or entities with any information those persons or entities may require from time to time in connection with such records and material.
- 3) The Contractor shall maintain and keep the records intact until the expiration of two years after the date that a Certificate of Completion has been issued or until the expiration of such other period of time as the NCC may direct.
- 4) The Contractor shall cause all subcontractors at any tier and all other persons directly or indirectly controlled by or affiliated with the Contractor and all persons directly or indirectly having control of the Contractor to comply with the requirements of this clause as if they were the Contractor.

- GC3.1 PROGRESS SCHEDULE
- GC3.2 ERRORS AND OMISSIONS
- GC3.3 CONSTRUCTION SAFETY
- GC3.4 EXECUTION OF THE WORK
- GC3.5 MATERIAL
- GC3.6 SUBCONTRACTING
- GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS
- GC3.8 LABOUR
- GC3.9 TRUCK HAULAGE RATES **(CANCELLED)**
- GC3.10 MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF THE NCC
- GC3.11 DEFECTIVE WORK
- GC3.12 CLEANUP OF SITE
- GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

GC3.1 PROGRESS SCHEDULE

- 1) The Contractor shall:
 - (a) prepare and submit to the NCC, prior to the submission of the Contractor's first progress claim, a progress schedule in accordance with the requirements set out in the Contract;
 - (b) monitor the progress of the Work relative to the schedule and update the schedule as stipulated by the contract documents;
 - (c) advise the NCC of any revisions to the schedule required as the result of any extension of time for completion of the Contract that was approved by the NCC; and
 - (d) prepare and submit to the NCC, at the time of issuance of an Certificate of Substantial Performance, an update of any schedule clearly showing a detailed timetable that is acceptable to the NCC for the completion of any unfinished Work and the correction of all listed defects.

GC3.2 ERRORS AND OMISSIONS

- 1) The Contractor shall report promptly to the NCC any errors, discrepancies, or omissions the Contractor may discover when reviewing the contract documents. In making a review, the Contractor does not assume any responsibility to the NCC for the accuracy of the review. The Contractor shall not be liable for damage or costs resulting from such errors, discrepancies, or omissions in the contract documents prepared by or on behalf of the NCC that the Contractor did not discover.

GC3.3 CONSTRUCTION SAFETY

- 1) Subject to GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS, the Contractor shall be solely responsible for construction safety at the place of the Work and for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work. In any emergency, the Contractor shall either, stop the Work, make changes or order extra work to ensure the safety of life and the protection of the Work and neighbouring property.
- 2) Prior to commencing the Work, the Contractor shall notify the authorities having jurisdiction for construction safety at the site of the Work with respect to the intended commencement of the Work, and shall provide such authority with whatever additional information may be required by that authority.

GC3.4 EXECUTION OF THE WORK

- 1) The Contractor shall perform, use or supply and pay for, all labour, Plant, Material, tools, construction machinery and equipment, water, heat, light, power, transportation and other facilities and services necessary for the performance of the Work in accordance with the Contract.
- 2) The Contractor shall, at all times, perform the Work in a proper, diligent and expeditious manner as is consistent with construction industry standards and in accordance with the progress schedule prepared pursuant to GC3.1 PROGRESS SCHEDULE and shall provide sufficient personnel to fulfil the Contractor's obligations in accordance with that schedule.
- 3) Subject to paragraph 4) of GC3.4, the Contractor shall have complete care, custody and control of the Work and shall direct and supervise the Work so as to ensure compliance with the Contract. The Contractor shall be responsible for construction means, methods, techniques, sequences and procedures and for co-ordinating the various parts of the Work.
- 4) When requested in writing by the NCC, the Contractor shall make appropriate alterations in the method, Plant or workforce at any time the NCC considers the Contractor's actions to be unsafe or damaging to either the Work, existing facilities, persons at the site of the Work or the environment.
- 5) The Contractor shall have sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities and for the construction methods used in their erection, operation, maintenance and removal. The Contractor shall engage and pay for registered professional engineering personnel, skilled in the appropriate discipline to perform these functions if required by law or by the Contract, and in all cases when such temporary facilities and their methods of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 6) The Contractor shall keep at least one copy of current contract documents, submittals, reports, and records of meetings at the site of the Work, in good order and available to the NCC.
- 7) Except for any part of the Work that is necessarily performed away from or off the site of the Work, the Contractor shall confine Plant, storage of Material, and operations of employees to limits indicated by laws, ordinances, permits or the contract documents.

GC3.5 MATERIAL

- 1) Unless otherwise specified in the Contract, all Material incorporated in the Work shall be new.
- 2) Subject to paragraph 3) of GC3.5, if a specified reused, refurbished, or recycled item of Material is not available, the Contractor shall apply to the NCC to substitute a similar item for the one specified.
- 3) If the NCC agrees that the Contractor's application for substitution of a reused, refurbished or recycled item is warranted, and that the substitute item is of acceptable quality and value to that specified and is suitable for the intended purpose, the NCC may approve the substitution, subject to the following:
 - (a) the request for substitution shall be made in writing to the NCC and shall be substantiated by information in the form of the manufacturer's literature, samples and other data that may be required by the NCC;
 - (b) the Contractor shall make the request for substitution in a manner that shall not negatively affect the progress schedule of the Contract and well in advance of the time the item of Material must be ordered;

- (c) substitution of Material shall be permitted only with the prior written approval of the NCC, and any substituted items that are supplied or installed without such approval shall be removed from the site of the Work at the expense of the Contractor, and specified items installed at no additional cost to the NCC; and
- (d) the Contractor shall be responsible for all additional expenses incurred by the NCC, the Contractor, its subcontractors and suppliers at any tier due to the Contractor's use of the substitute.

GC3.6 SUBCONTRACTING

- 1) Subject to the provisions of this clause, the Contractor may subcontract any part of the Work but not the whole of the Work.
- 2) The Contractor shall notify the NCC in writing of the Contractor's intention to subcontract.
- 3) A notification referred to in paragraph 2) of GC3.6 shall identify the part of the Work and the Subcontractor with whom the Contractor intends to subcontract.
- 4) The NCC may for reasonable cause, object to the intended subcontracting by notifying the Contractor in writing within six (6) days of receipt by the NCC of a notification referred to in paragraph 2) of GC3.6.
- 5) If the NCC objects to a subcontracting, the Contractor shall not enter into the intended subcontract.
- 6) The Contractor shall not change, nor permit to be changed, a Subcontractor engaged by the Contractor, in accordance with this clause, without the written consent of the NCC.
- 7) The Contractor shall ensure that all the terms and conditions of the Contract that are of general application shall be incorporated in every other contract issued as a consequence of the Contract, at whatever tier, except those contracts issued solely to suppliers at any tier for the supply of Plant or Material.
- 8) Neither a subcontracting nor the NCC's consent to a subcontracting shall be construed to relieve the Contractor from any obligation under the Contract or to impose any liability upon the NCC.

GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS

- 1) The NCC reserves the right to send other contractors or workers, with or without Plant and Material, onto the site of the Work.
- 2) When other contractors or workers are sent on to the site of the Work, the NCC shall:
 - (a) enter into separate contracts, to the extent it is possible, with the other contractors under conditions of contract that are compatible with the conditions of the Contract;
 - (b) ensure that the insurance coverage provided by the other contractors is co-ordinated with the insurance coverage of the Contractor as it affects the Work; and
 - (c) take all reasonable precautions to avoid labour disputes or other disputes arising from the work of the other contractors or workers.
- 3) When other contractors or workers are sent on to the site of the Work, the Contractor shall:
 - (a) co-operate with them in the carrying out of their duties and obligations;

- (b) co-ordinate and schedule the Work with the work of the other contractors and workers;
 - (c) participate with other contractors and workers in reviewing their construction schedules when directed to do so;
 - (d) where part of the Work is affected by or depends upon the work of other contractors or workers for its proper execution, promptly report to the NCC in writing and prior to proceeding with that part of the Work, any apparent deficiencies in such work. Failure by the Contractor to so report shall invalidate any claims against the NCC by reason of the deficiencies in the work of other contractors or workers except those deficiencies that are not then reasonably discoverable; and
 - (e) when designated as being responsible for construction safety at the place for work, in accordance with the applicable provincial or territorial laws, carry out its duties in that role and in accordance with those laws.
- 4) If, when entering into the Contract, the Contractor could not have reasonably foreseen nor anticipated the sending of other contractors or workers on to the site of the Work and provided the Contractor:
- (a) incurs extra expense in complying with the requirements of paragraph 3) of GC3.7; and
 - (b) gives the NCC written notice of a claim for that extra expense within thirty (30) days of the date that the other contractors or workers were sent onto the Work or its site,

the NCC shall pay the Contractor the cost of the extra labour, Plant and Material that was necessarily incurred, calculated in accordance with GC6.4 DETERMINATION OF PRICE.

GC3.8 LABOUR

- 1) The Contractor shall maintain good order and discipline among the Contractor's employees and workers engaged in the Work shall not employ, on the site of the Work, anyone not skilled in the tasks assigned.

GC3.9 TRUCK HAULAGE RATES

CANCELLED

GC3.10 MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF THE NCC

- 1) Subject to paragraph 9) of GC1.8 LAWS PERMITS AND TAXES, all Material and Plant and the interest of the Contractor in all real property, licences, powers and privileges purchased, used or consumed by the Contractor for the Work shall, immediately after the time of their purchase, use or consumption be the property of the NCC for the purposes of the Work and they shall continue to be the property of the NCC:
- (a) in the case of Material, until the NCC indicates that the Materials shall not be required for the Work; and
 - (b) in the case of Plant, real property, licences, powers and privileges, until the NCC indicates that the interest vested in the NCC therein is no longer required for the purposes of the Work.
- 2) Material or Plant, that is the property of the NCC by virtue of paragraph 1) of GC3.10, shall not be taken away from the site of the Work nor used nor disposed of except for the purposes of the Work without the written consent of the NCC.

- 3) The NCC is not liable for loss of nor damage from any cause to the Material or Plant referred to in paragraph 1) of GC3.10, and the Contractor is liable for such loss or damage notwithstanding that the Material or Plant is the property of the NCC.

GC3.11 DEFECTIVE WORK

- 1) The Contractor shall promptly remove from the site of the Work and replace or re-execute defective Work whether or not the defective Work has been incorporated in the Work and whether or not the defect is the result of poor workmanship, use of defective Material, or damage through carelessness or other act or omission of the Contractor.
- 2) The Contractor, at the Contractor's expense, shall promptly make good other work destroyed or damaged by such removals or replacements.
- 3) If, in the opinion of the NCC, it is not expedient to correct defective Work or Work not performed as provided for in the Contract documents, the NCC may deduct from the amount otherwise due to the Contractor the difference in value between the Work as performed and that called for by the Contract documents.
- 4) The failure of the NCC to reject any defective Work or Material shall not constitute acceptance of the defective Work or Material.

GC3.12 CLEANUP OF SITE

- 1) The Contractor shall maintain the Work and its site in a tidy condition and free from an accumulation of waste material and debris.
- 2) Before the issue of a Certificate of Substantial Performance, the Contractor shall remove waste material and debris, and all Plant and Material not required for the performance of the remaining Work and, unless otherwise stipulated in the Contract Documents, shall cause the Work and its site to be clean and suitable for occupancy by the NCC.
- 3) Before the issue of a Certificate of Completion, the Contractor shall remove all surplus Plant and Materials and any waste products and debris from the site of the Work.
- 4) The Contractor's obligations described in paragraphs 1) to 3) of GC3.12 do not extend to waste products and other debris caused by the NCC's servants, or by other contractors and workers referred to in GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS.

GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

- 1) Without restricting any warranty or guarantee implied or imposed by law or contained in the Contract, the Contractor shall, at the Contractor's expense:
 - (a) rectify and make good any defect or fault that appears in the Work or comes to the attention of the NCC with respect to those parts of the Work accepted in connection with the Certificate of Substantial Performance within 12 months from the date of Substantial Performance; and
 - (b) rectify and make good any defect or fault that appears in or comes to the attention of the NCC in connection with those parts of the Work described in the Certificate of Substantial Performance within 12 months from the date of the Certificate of Completion;
 - (c) transfer and assign, to the NCC, any subcontractor, manufacturer or supplier extended warranties or guarantees implied or imposed by law or contained in the Contract covering periods beyond the 12 months stipulated above. Extended warranties or guarantees referred to

herein shall not extend the 12-month period whereby the Contractor, except as may be provided elsewhere in the Contract, must rectify and make good any defect or fault that appears in the Work or comes to the attention of the NCC;

- (d) provide, to the NCC prior to the issuance of the Certificate of Completion, a list of all extended warranties and guarantees referred to in paragraph (c) above.
- 2) The NCC may direct the Contractor to rectify and make good any defect or fault referred to in paragraph 1) of GC3.13 or covered by any other expressed or implied warranty or guarantee and the Contractor shall rectify and make good such defect within the time stipulated in the direction.
- 3) A direction referred to in paragraph 2) GC3.13 shall be in writing and shall be given to the Contractor in accordance with GC2.3 NOTICES.

- GC4.1 PROTECTION OF WORK AND PROPERTY
- GC4.2 PRECAUTIONS AGAINST DAMAGE, INFRINGEMENT OF RIGHTS, FIRE AND OTHER HAZARDS
- GC4.3 MATERIAL, PLANT AND REAL PROPERTY SUPPLIED BY THE NCC
- GC4.4 CONTAMINATED SITE CONDITIONS

GC4.1 PROTECTION OF WORK AND PROPERTY

- 1) The Contractor shall protect the Work and its site against loss or damage from any cause and shall similarly protect all Material, Plant and real property under the Contractor's care, custody and control whether or not such Material, Plant and real property are supplied by the NCC to the Contractor.
- 2) The Contractor shall provide all facilities necessary for the purpose of maintaining security, and shall assist any person authorized by the NCC to inspect or to take security measures in respect of the Work and its site.
- 3) The NCC may direct the Contractor to do such things and to perform such work as the NCC considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraphs 1) or 2) of GC4.1, and the Contractor, shall comply with such direction.

GC4.2 PRECAUTIONS AGAINST DAMAGE, INFRINGEMENT OF RIGHTS, FIRE AND OTHER HAZARDS

- 1) The Contractor shall do whatever is necessary to ensure that:
 - (a) no person, property, right, easement nor privilege is injured, damaged or infringed upon by reasons of the Contractor's activities in performing the Work;
 - (b) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted nor endangered by the performance or existence of the Work, Material or Plant;
 - (c) fire hazards in or about the site of the Work are eliminated and any fire is promptly extinguished;
 - (d) the health and safety of all persons employed in the performance of the Work is not endangered by the methods nor means of their performance;
 - (e) adequate medical services are available to all persons employed on the Work or its site at all times during the performance of the Work;
 - (f) adequate sanitation measures are taken in respect of the Work and its site; and
 - (g) all stakes, buoys and marks placed on the Work or its site by the NCC are protected and are not removed, defaced, altered nor destroyed.
- 2) The NCC may direct the Contractor to do such things and to perform such work as the NCC considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraph 1) of GC4.2, and the Contractor shall comply with the direction of the NCC.

GC4.3 MATERIAL, PLANT AND REAL PROPERTY SUPPLIED BY THE NCC

- 1) Subject to paragraph 2) of GC4.3, the Contractor is liable to the NCC for any loss of or damage to Material, Plant or real property that is supplied or placed in the care, custody and control of the Contractor by the NCC for use in connection with the Contract, whether or not that loss or damage is attributable to causes beyond the Contractor's control.

- 2) The Contractor is not liable to the NCC for any loss or damage to Material, Plant or real property referred to in paragraph 1) of GC4.3 if that loss or damage results from and is directly attributable to reasonable wear and tear.
- 3) The Contractor shall not use any Material, Plant or real property supplied by the NCC except for the purpose of performing the Contract.
- 4) When the Contractor fails to make good any loss or damage for which the Contractor is liable under paragraph 1) within a reasonable time, the NCC may cause the loss or damage to be made good at the Contractor's expense, and the Contractor shall thereupon be liable to the NCC for the cost thereof and shall, on demand, pay to the NCC an amount equal to that cost.
- 5) The Contractor shall keep records of all Material, Plant and real property supplied by the NCC as the NCC requires and shall satisfy the NCC, when requested, that such Material, Plant and real property are at the place and in the condition in which they ought to be.

GC4.4 CONTAMINATED SITE CONDITIONS

- 1) For the purposes of GC4.4, a contaminated site condition exists when a solid, liquid, gaseous, thermal or radioactive irritant or contaminant, or other hazardous or toxic substance or material, including moulds and other forms of fungi, is present at the site of the Work to an extent that constitutes a hazard, or potential hazard, to the environment, property, or the health or safety of any person.
- 2) If the Contractor encounters a contaminated site condition of which the Contractor is not aware or about which the Contractor has not been advised, or if the Contractor has reasonable grounds to believe that such a site condition exists at the site of the Work, the Contractor shall:
 - (a) take all reasonable steps, including stopping the Work, to ensure that no person suffers injury, sickness or death, and that neither property nor the environment is injured or destroyed as a result of the contaminated site condition;
 - (b) immediately notify the NCC of the circumstances in writing; and
 - (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.
- 3) Upon receipt of a notification from the Contractor, the NCC shall promptly determine whether a contaminated site condition exists, and shall notify the Contractor in writing of any action to be taken, or work to be performed, by the Contractor as a result of the NCC's determination.
- 4) If the Contractor's services are required by the NCC, the Contractor shall follow the direction of the NCC with regard to any excavation, treatment, removal and disposal of any polluting substance or material.
- 5) The NCC, at the NCC's sole discretion, may enlist the services of experts and specialty contractors to assist in determining the existence of, and the extent and treatment of contaminated site conditions, and the Contractor shall allow them access and co-operate with them in the carrying out of their duties and obligations.
- 6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE shall apply to any additional work made necessary because of a contaminated site condition.

- GC5.1 INTERPRETATION
- GC5.2 AMOUNT PAYABLE
- GC5.3 INCREASED OR DECREASED COSTS
- GC5.4 PROGRESS PAYMENT
- GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK
- GC5.6 FINAL COMPLETION
- GC5.7 PAYMENT NOT BINDING ON THE NCC
- GC5.8 CLAIMS AND OBLIGATIONS
- GC5.9 RIGHT OF SETOFF
- GC5.10 ASSESSMENTS AND DAMAGES FOR LATE COMPLETION
- GC5.11 DELAY IN MAKING PAYMENT
- GC5.12 INTEREST ON SETTLED CLAIMS
- GC5.13 RETURN OF SECURITY DEPOSIT

GC5.1 INTERPRETATION

In these Terms of Payment

- 1) The "payment period" means a period of 30 consecutive days or such other longer period as may be agreed between the Contractor and the NCC.
- 2) An amount is "due and payable" when it is due and payable by the NCC to the Contractor according to GC5.4 PROGRESS PAYMENT, GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK or GC5.6 FINAL COMPLETION.
- 3) An amount is overdue when it remains unpaid on the first day following the day upon which it is due and payable.
- 4) The "date of payment" means the date of the negotiable instrument of an amount due and payable by the NCC.
- 5) The "Bank Rate" means the rate of interest established by the Bank of Canada as the minimum rate at which it makes short term advances to members of the Canadian Payments Association.
- 6) The "Average Bank Rate" means the simple arithmetic mean of the Bank Rate in effect at 4:00 p.m. Ottawa Time each day during the calendar month which immediately precedes the calendar month in which payment is made.

GC5.2 AMOUNT PAYABLE

- 1) Subject to any other provisions of the Contract, the NCC shall pay the Contractor, at the times and in the manner hereinafter set out, the amount by which the amounts payable by the NCC to the Contractor in accordance with the Contract exceed the amounts payable by the Contractor to the NCC, and the Contractor shall accept that amount as payment in full satisfaction for everything furnished and done by the Contractor in respect of the Work to which the payment relates.
- 2) When making any payment to the Contractor, the failure of the NCC to deduct an amount payable to the NCC by the Contractor shall not constitute a waiver of the right to do so, or an admission of lack of entitlement to do so in any subsequent payment to the Contractor.
- 3) No payment other than a payment that is expressly stipulated in the Contract, shall be made by the NCC to the Contractor for any extra expense or any loss or damage incurred or sustained by the Contractor.

GC5.3 INCREASED OR DECREASED COSTS

- 1) The Contract Amount shall not be increased nor decreased by reason of any increase or decrease in the cost of the Work that is brought about by an increase or decrease in the cost of labour, Plant, Material or any wage adjustment arising pursuant to the Labour Conditions.
- 2) Notwithstanding paragraph 1) of GC5.3, if any change, including a new imposition or repeal, of any tax, customs or other duty, charge, or any similar imposition that is imposed under sales, customs or excise tax legislation of the Government of Canada or any Provincial or Territorial legislation, affects the cost of the Work to the Contractor, and occurs:
 - (a) after the date of submission by the Contractor of its tender; or
 - (b) after the date of submission of the last revision, if the Contractor's tender was revised,
 the Contract Amount shall be adjusted in the manner provided in paragraph 3) of GC5.3.
- 3) If a change referred to in paragraph 2) of GC5.3 occurs, the Contract Amount shall be increased or decreased by an amount established by an examination by the NCC of the relevant records of the Contractor referred to in GC2.8 ACCOUNTS AND AUDITS to be the increase or decrease in the cost incurred by the Contractor that is directly attributable to that change.
- 4) For the purpose of paragraph 2) of GC5.3, if a tax is changed after the tender closing, but public notice of the change has been given by the Minister of Finance or the corresponding Provincial or Territorial authority before that closing, the change shall be deemed to have occurred before the solicitation closing.
- 5) Notwithstanding paragraphs 2) to 4) of GC5.3, no adjustment to the Contract Amount in respect of the Work or a part thereof shall be made for a change in any imposition referred to in this section that occurs after the date required by the Contract for completion of the Work or that part of the Work.

GC5.4 PROGRESS PAYMENT

- 1) On the expiration of a payment period, the Contractor shall deliver to the NCC:
 - (a) a written progress claim in a form acceptable to the NCC that fully describes any part of the Work that has been completed, and any Material that was delivered to the Work site but not incorporated into the Work, during that payment period: and
 - (b) a completed and signed statutory declaration containing a declaration that, up to the date of the progress claim, the Contractor has complied with all lawful obligations with respect to the Labour Conditions and that, in respect of the Work, all lawful obligations of the Contractor to its Subcontractors and Suppliers, referred to collectively in the declaration as "subcontractors and suppliers", have been fully discharged.
- 2) Within 10 days of receipt of a progress claim and statutory declaration from the Contractor, the NCC shall inspect, or cause to have inspected, the part of the Work and the Material described in the progress claim, and shall issue a progress report to the Contractor, that indicates the value of the part of the Work and the Material described in the progress claim that, in the opinion of the NCC:
 - (a) is in accordance with the Contract; and
 - (b) was not included in any other progress report relating to the Contract.

- 3) Subject to GC5.2 AMOUNT PAYABLE, and paragraph 5) of GC5.4, the NCC shall pay the Contractor an amount that is equal to:
 - (a) 95% of the value that is indicated in the NCC's progress report if a labour and material payment bond has been furnished by the Contractor; or
 - (b) 90% of the value that is indicated in the NCC's progress report if a labour and material payment bond has not been furnished by the Contractor.
- 4) Subject to GC5.2, "Amount Payable", and paragraph 5) of GC5.4, the NCC shall pay the Contractor an amount that is equal to 90% of the value that is indicated in the NCC's progress report
- 5) In the case of the Contractor's first progress claim, it is a condition precedent to the NCC's obligation under paragraph 3) of GC5.4 that the Contractor has provided all necessary documentation required by the Contract for the first progress claim and has provided evidence of compliance with workers' compensation legislation applicable to the place of the Work in accordance with GC1.9 WORKERS' COMPENSATION.

GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK

- 1) If, at any time before the issuance of a Certificate of Completion, the NCC determines that the Work has reached Substantial Performance as described in subparagraph 1) (b) of GC1.1.4 SUBSTANTIAL PERFORMANCE, the NCC shall issue a Certificate of Substantial Performance to the Contractor. The Certificate of Substantial Performance shall state or describe:
 - (a) the date of Substantial Performance;
 - (b) the parts of the Work not completed to the satisfaction of the NCC; and
 - (c) all things that must be done by the Contractor before a Certificate of Completion is issued and before the 12-month warranty period referred to in GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK commences for the said parts and all the said things.
- 2) The issuance of a Certificate of Substantial Performance does not relieve the Contractor from the Contractor's obligations under GC3.11 DEFECTIVE WORK.
- 3) Subject to GC5.2 AMOUNT PAYABLE and paragraph 4) of GC5.5, the NCC shall pay the Contractor the amount referred to in paragraph 1) of GC5.2 AMOUNT PAYABLE, less the aggregate of:
 - (a) the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT;
 - (b) an amount that is equal to the NCC's estimate of the cost to the NCC of rectifying defects described in the Certificate of Substantial Performance; and
 - (c) an amount that is equal to the NCC's estimate of the cost to the NCC of completing the parts of the Work described in the Certificate of Substantial Performance other than defects listed therein.
- 4) The NCC shall pay the amount referred to in paragraph 3) of GC5.5 not later than:
 - (a) 30 days after the date of issue of a Certificate of Substantial Performance, or
 - (b) 15 days after the Contractor has delivered to the NCC:

- (i) a statutory declaration containing a declaration by the Contractor that up to the date of the Certificate of Substantial Performance, the Contractor has complied with all lawful obligations with respect to the Labour Conditions, discharged all its lawful obligations to its Subcontractors and Suppliers in respect of the work under the Contract, and discharged its lawful obligations referred to in GC1.8 LAWS, PERMITS AND TAXES;
- (ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION; and
- (iii) an update of the progress schedule in accordance with the requirements of GC3.1 PROGRESS SCHEDULE;

whichever is later.

GC5.6 FINAL COMPLETION

- 1) When the NCC is of the opinion that the Contractor has complied with the Contract and all orders and directions made pursuant thereto, and that the Work has been completed as described in GC1.1.5 COMPLETION, the NCC shall issue a Certificate of Completion to the Contractor and, if the Work or a portion of the Work is subject to a Unit Price Arrangement, the NCC shall issue a Certificate of Measurement that shall, subject to GC8, be binding upon and conclusive between the NCC and the Contractor as to the quantities referred to therein.
- 2) Subject to GC5.2 AMOUNT PAYABLE and paragraph 3) of GC5.6, the NCC shall pay the Contractor the amount referred to in GC5.2 AMOUNT PAYABLE, less the aggregate of the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT and GC5.5 SUBSTANTIAL PERFORMANCE OF WORK.
- 3) The NCC shall pay the amount referred to in paragraph 2) of GC5.6 not later than:
 - (a) 60 days after the date of issue of a Certificate of Completion; or
 - (b) 15 days after the Contractor has delivered to the NCC:
 - (i) a statutory declaration which contains a declaration by the Contractor that all of the Contractor's lawful obligations and any lawful claims against the Contractor that arose out of the performance of the Contract have been discharged and satisfied; and
 - (ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION;

whichever is later.

GC5.7 PAYMENT NOT BINDING ON NCC

- 1) Neither acceptance of a progress claim or progress report, nor any payment made by the NCC under the Contract, nor partial or entire use or occupancy of the Work by the NCC shall constitute an acceptance by the NCC of any portion of the Work or Material that is not in accordance with the requirements of the Contract.

GC5.8 CLAIMS AND OBLIGATIONS

- 1) The Contractor shall discharge all the Contractor's lawful obligations and shall satisfy all lawful claims against the Contractor arising out of the performance of the Work at least as often as the Contract requires the NCC to pay the Contractor.

- 2) Whenever requested to do so by the NCC, the Contractor shall make a statutory declaration declaring to the existence and condition of any obligations and claims against the Contractor arising out of the performance of the Work.
- 3) In order to discharge lawful obligations of and satisfy lawful claims against the Contractor or its Subcontractors arising out of the performance of the Contract, the NCC may pay an amount that is due and payable to the Contractor directly to the claimant. Such payment is, to the extent of the payment, a discharge of the NCC's liability to the Contractor under the Contract and may be deducted from any amount payable to the Contractor under the Contract.
- 4) For the purposes of paragraph 3) of GC5.8, and subject to paragraph 6) of GC5.8, a claim or obligation shall be considered lawful when it is so determined by:
 - (a) a court of legal jurisdiction;
 - (b) an arbitrator duly appointed to arbitrate the claim; or
 - (c) the written consent of the Contractor authorizing payment of the claim or obligation.
- 5) If a claim or obligation would have been subject to the provisions of Provincial or Territorial lien legislation or, in the Province of Quebec, the law relating to legal hypothecs had the Contractor been performing the Work for an entity other than the NCC:
 - (a) such amount as may be paid by the NCC pursuant to paragraphs 3) and 4) of GC5.8 shall not exceed the amount that the Contractor would have been obliged to pay had the provisions of such legislation or law been applicable to the Work;
 - (b) a claimant need not comply with the provisions of such legislation, setting out the steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had; and
 - (c) for the purposes of determining the entitlement of a claimant, the notice required by paragraph 8) of GC5.8 shall be deemed to replace the registration or provision of notice after the performance of work as required by any applicable legislation and no claim shall be deemed to have expired, become void or unenforceable by reason of the claimant not commencing any action within the time prescribed by such legislation.
- 6) The Contractor shall, at the request of any claimant, submit to binding arbitration those questions that need to be answered to establish the entitlement of the claimant to payment. The arbitration shall have as parties to it any Subcontractor or Supplier to whom the claimant supplied Material, performed work or rented equipment should such Subcontractor or Supplier wish to be adjoined, and the NCC shall not be a party to such arbitration. Subject to any agreement between the Contractor and the claimant, the arbitration shall be conducted in accordance with the governing Provincial or Territorial legislation applicable to the site of the Work.
- 7) Paragraph 3) of GC5.8 shall apply only to claims and obligations:
 - (a) the notification of which has set forth the amount claimed to be owing and the person who by contract is primarily liable and has been received by the NCC in writing before final payment is made to the Contractor pursuant to GC5.6 FINAL COMPLETION, and within 120 days of the date on which the claimant:

- (i) should have been paid in full under the claimant's contract with the Contractor, its Subcontractor or Supplier if the claim is for money that was lawfully required to be held back from the claimant; or
 - (ii) performed the last of the services, work or labour, or furnished the last of the Material pursuant to the claimant's contract with the Contractor or its Subcontractor or Supplier where the claim is for money not lawfully required to be held back from the claimant; and
- (b) the proceedings to determine the right to payment of which, pursuant to paragraph 5) of GC5.8, shall have commenced within one year from the date that the notification required by subparagraph 7)(a) of GC5.8 was received by the NCC.
- 8) Upon receipt of a notice of claim, the NCC may withhold, from any amount that is due and payable to the Contractor pursuant to the Contract, the full amount of the claim or any portion thereof.
- 9) The NCC shall notify the Contractor in writing in a timely manner of receipt of any claim and of the intention of the NCC to withhold funds. At any time thereafter and until payment is made to the claimant, the Contractor may be entitled to post, with the NCC, security in a form acceptable to the NCC in an amount equal to the value of the claim, and upon receipt of such security the NCC shall release to the Contractor any funds that would be otherwise payable to the Contractor, that were withheld pursuant to the provisions of this clause in respect of the claim of any claimant for whom the security stands.

GC5.9 RIGHT OF SETOFF

- 1) Without limiting any right of setoff or deduction given or implied by law or elsewhere in the Contract, the NCC may set off any amount payable to the NCC by the Contractor under the Contract, or under any current contract, against any amount payable to the Contractor under the Contract.
- 2) For the purposes of paragraph 1) of GC5.9, "current contract" means a contract between the NCC and the Contractor:
- (a) under which the Contractor has an undischarged obligation to perform or supply work, labour or material; or
 - (b) in respect of which the NCC has, since the date of the Contract, exercised any right to take the work that is the subject of that contract out of the Contractor's hands.

GC5.10 ASSESSMENTS AND DAMAGES FOR LATE COMPLETION

- 1) For the purposes of this clause:
- (a) the Work shall be deemed to be completed on the date of the Certificate of Completion; and
 - (b) the "period of delay" means the number of days commencing on the day fixed for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day within a period of extension granted pursuant to GC6.5 DELAYS AND EXTENSION OF TIME and any other day on which, in the opinion of the NCC, completion of the Work was delayed for reasons beyond the control of the Contractor.
- 2) If the Contractor does not complete the Work by the day fixed for its completion but completes it thereafter, the Contractor shall pay the NCC an amount equal to the aggregate of:
- (a) all salaries, wages and travelling expenses incurred by the NCC in respect of persons overseeing the performance of the Work during the period of delay;

- (b) the cost incurred by the NCC as a result of the inability to use the completed Work for the period of delay; and
 - (c) all other expenses and damages incurred or sustained by the NCC during the period of delay as a result of the Work not being completed by the day fixed for its completion.
- 3) The NCC may waive the right of the NCC to the whole or any part of the amount payable by the Contractor pursuant to paragraph 2) of GC5.10 if, in the opinion of the NCC, it is in the public interest to do so.

GC5.11 DELAY IN MAKING PAYMENT

- 1) Notwithstanding GC1.5 TIME OF THE ESSENCE, any delay by the NCC in making any payment when it is due pursuant to GC5 TERMS OF PAYMENT, shall not be a breach of the Contract by the NCC.
- 2) Subject to paragraph 3) of GC5.11, the NCC shall pay to the Contractor simple interest at the Average Bank Rate plus 3 percent per annum on any amount that is overdue pursuant to paragraph 3) of GC5.1 INTERPRETATION, and the interest shall apply from and include the day such amount became overdue until the day prior to the date of payment.
- 3) Interest shall be paid, on demand by the Contractor, except that:
- (a) in respect of amounts that are less than 15 days overdue, no interest shall be paid in respect of payment made within such 15 days; and
 - (b) interest shall not be payable or paid on overdue advance payments, if any.

GC5.12 INTEREST ON SETTLED CLAIMS

- 1) For the purposes of this clause, a claim means a disputed amount subject to negotiation between the NCC and the Contractor under the Contract.
- 2) A claim is deemed to have been settled when an agreement in writing is signed by the NCC and the Contractor setting out the amount of the claim to be paid by the NCC and the items of work for which the said amount is to be paid.
- 3) A settled claim is deemed to be outstanding from the day immediately following the date the said claim would have been due and payable under the Contract had it not been disputed.
- 4) The NCC shall pay to the Contractor simple interest on the amount of a settled claim at the Average Bank Rate plus 3 per cent per annum from the date the settled claim was deemed to be outstanding until the day prior to the date of payment.

GC5.13 RETURN OF SECURITY DEPOSIT

- 1) After a Certificate of Substantial Performance has been issued, and if the Contractor is not in breach of nor in default under the Contract, the NCC shall return to the Contractor all or any part of a Security Deposit that, in the opinion of the NCC, is not required for the purposes of the Contract.
- 2) After a Certificate of Completion has been issued, the NCC shall return to the Contractor the remainder of any security deposit unless the Contract stipulates otherwise.
- 3) If the security deposit was paid to the NCC, the NCC shall pay interest thereon to the Contractor at a rate established pursuant to section 21(2) of the Financial Administration Act.

- GC6.1 CHANGES IN THE WORK
- GC6.2 CHANGES IN SUBSURFACE CONDITIONS
- GC6.3 HUMAN REMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR SCIENTIFIC INTEREST
- GC6.4 DETERMINATION OF PRICE
 - GC6.4.1 Price Determination Prior to Undertaking Changes
 - GC6.4.2 Price Determination Following Completion of Changes
 - GC6.4.3 Price Determination - Variations in Tendered Quantities
- GC6.5 DELAYS AND EXTENSION OF TIME
- GC6.6 ALLOWABLE COSTS FOR CONTRACT CHANGES UNDER GC6.4.1
 - GC6.6.1 General
 - GC6.6.2 Hourly Labour Rates
 - GC6.6.3 Material, Plant and Equipment Costs
 - GC6.6.4 Allowance to the Contractor or Subcontractor

GC6.1 CHANGES IN THE WORK

- 1) At any time before issuance of a Certificate of Completion, Canada may issue orders for additions, deletions or other changes to the Work, or changes in the location or position of the whole or any part of the Work, if the addition, deletion, change or other revision is deemed by Canada to be consistent with the general intent of the Contract.
- 2) An order referred to in paragraph 1) of GC6.1 shall be in writing and given to the Contractor in accordance with GC2.3 NOTICES.
- 3) Upon receipt of an order, the Contractor shall promptly perform the work in accordance with the order as if the order had appeared in and been part of the original Contract.
- 4) If anything done or omitted by the Contractor pursuant to an order increases or decreases the cost of the Work to the Contractor, payment for the work shall be made in accordance with GC6.4 DETERMINATION OF PRICE.

GC6.2 CHANGES IN SUBSURFACE CONDITIONS

- 1) If, during the performance of the Work, the Contractor encounters subsurface conditions that are substantially different from the subsurface conditions described in the tender documents supplied to the Contractor, or a reasonable assumption of fact based thereon, the Contractor shall give notice to Canada immediately upon becoming aware of the situation.
- 2) If the Contractor is of the opinion that the Contractor may incur or sustain any extra expense or any loss or damage that is directly attributable to the changed subsurface conditions, the Contractor shall within 10 days of the date the changed subsurface conditions were encountered, give Canada written notice of intention to claim for that extra expense, loss or damage.
- 3) If the Contractor has given a notice referred to in paragraph 2) of GC6.2, the Contractor shall give Canada a written claim for extra expense, loss or damage no later than 30 days after the date that a Certificate of Substantial Performance is issued.
- 4) A written claim referred to in paragraph 3) of GC6.2 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified, and the Contractor shall supply such further and other information for that purpose as Canada requires.

- 5) If Canada determines that a claim referred to in paragraph 3) of GC6.2 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.
- 6) If, in the opinion of Canada, the Contractor effects a saving of expenditure that is directly attributable to a substantial difference between the information relating to subsurface conditions at the site of the Work that is contained in the tender documents, or a reasonable assumption of fact based thereon, and the actual subsurface conditions encountered by the Contractor, the Contract Amount shall be reduced by the amount of the saving of expenditure determined in accordance with GC6.4 DETERMINATION OF PRICE.
- 7) If the Contractor fails to give a notice referred to in paragraph 2) of GC6.2 and a claim referred to in paragraph 3) of GC6.2 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.
- 8) Canada does not warrant the content expressed in any subsurface report available for the perusal of the Contractor that does not form part of the tender and contract documents.

GC6.3 HUMAN REMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR SCIENTIFIC INTEREST

- 1) For the purposes of this clause
 - (a) "human remains" means the whole or any part of a deceased human being, irrespective of the time of death;
 - (b) "archaeological remains" are items, artefacts or things made, modified or used by human beings in antiquity and may include, but not be limited to, stone, wood or iron structures or monuments, dump deposits, bone artefacts, weapons, tools, coins, and pottery; and
 - (c) "items of historical or scientific interest" are naturally occurring or manufactured objects or things of any age that are not archaeological remains but may be of interest to society because of their historical or scientific significance, value, rarity, natural beauty, or other quality.
- 2) If, during the course of the Work, the Contractor encounters any object, item or thing which is described in paragraph 1) of GC6.3 or which resembles any object, item or thing described in paragraph 1) of GC6.3, the Contractor shall
 - (a) take all reasonable steps, including stopping work in the affected area, to protect and preserve the object, item or thing;
 - (b) immediately notify Canada of the circumstances in writing; and
 - (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.
- 3) Upon receipt of a notification in accordance with subparagraph 2)(b) of GC6.3, Canada shall promptly determine whether the object, item or thing is one described in, or contemplated by paragraph 1) of GC6.3, and shall notify the Contractor in writing of any action to be performed, or work to be carried out, by the Contractor as a result of Canada's determination.
- 4) Canada may, at any time, enlist the services of experts to assist in the investigation, examination, taking of measurements or other such recordings, placing of permanent protection around or removing of the object, item or thing encountered by the Contractor, and the Contractor shall, to the satisfaction

of Canada, allow them access and co-operate with them in the carrying out of their duties and obligations.

- 5) Human remains, archaeological remains and items of historical or scientific interest encountered at the site of the Work shall be deemed to be the property of Canada.
- 6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE and GC6.5 DELAYS AND EXTENSION OF TIME shall apply.

GC6.4 DETERMINATION OF PRICE**GC6.4.1 Price Determination Prior to Undertaking Changes**

- 1) If a Lump Sum Arrangement applies to the Contract or a part thereof, the price of any change shall be the aggregate estimated cost of labour, Plant and Material that is required for the change as agreed upon in writing by the Contractor and Canada plus an allowance for supervision, co-ordination, administration, overhead, margin and the risk of undertaking the work within the stipulated amount, which allowance shall be equal to
 - (a) 20% of the aggregate costs referred to herein for that portion of the Work done by the Contractor's own forces, if the aggregate cost of the Work does not exceed \$50,000;
 - (b) 15% of the aggregate costs referred to herein for that portion of the Work that is done by subcontract, if the aggregate cost of the Work does not exceed \$50,000; or
 - (c) a negotiated percentage of the aggregate costs referred to herein or a negotiated amount
 - (i) if the aggregate cost of the Work exceeds \$50,000; or
 - (ii) if the Contractor and Canada agree in writing.
- 2) If a Unit Price Arrangement applies to the Contract or a part thereof, the Contractor and Canada may, by agreement in writing, add items, units of measurement, estimated quantities and prices per unit to the Unit Price Table.
- 3) A price per unit referred to in paragraph 2) of GC6.4.1 shall be determined on the basis of the aggregate estimated cost of labour, Plant and Material that is required for the additional item as agreed upon by the Contractor and Canada, plus an allowance determined in accordance with paragraph 1) of GC6.4.1.
- 4) To facilitate approval of the price of the change or the additional price per unit as applicable, the Contractor shall submit a cost estimate breakdown identifying, as a minimum, the estimated cost of labour, Plant, Material, each subcontract amount, and the amount of the allowance.
- 5) If no agreement is reached as contemplated in paragraph 1) of GC6.4.1, the price shall be determined in accordance with GC6.4.2.
- 6) If no agreement is reached, as contemplated in paragraphs 2) and 3) of GC6.4.1, Canada shall determine the class and the unit of measurement of the item of labour, Plant or Material and the price per unit shall be determined in accordance with GC6.4.2.

GC6.4.2 Price Determination Following Completion of Changes

- 1) If it is not possible to predetermine, or if there is failure to agree upon the price of a change in the Work, the price of the change shall be equal to the aggregate of

- (a) all reasonable and proper amounts actually expended or legally payable by the Contractor in respect of the labour, Plant and Material that fall within one of the classes of expenditure described in paragraph 2) of GC6.4.2, that are directly attributable to the performance of the Contract;
 - (b) an allowance for profit and all other expenditures or costs, including overhead, general administration costs, financing and interest charges, in an amount that is equal to 10% of the sum of the expenses referred to in subparagraph 1)(a) of GC6.4.2; and
 - (c) interest on the amounts determined under subparagraphs 1)(a) and 1)(b) of GC6.4.2 calculated in accordance with GC5.12 INTEREST ON SETTLED CLAIMS;
- 2) The cost of labour, Plant and Material referred to in subparagraph 1)(a) of GC6.4.2 shall be limited to the following categories of expenditure:
- (a) payments to Subcontractors and Suppliers;
 - (b) wages, salaries, bonuses and, if applicable, travel and lodging expenses of employees of the Contractor located at the site of the Work and that portion of wages, salaries, bonuses and, if applicable, travel and lodging expenses of personnel of the Contractor generally employed at the head office or at a general office of the Contractor provided they are actually and properly engaged on the Work under the Contract;
 - (c) assessments payable under any statutory authority relating to workers' compensation, employment insurance, pension plan or holidays with pay, provincial health or insurance plans, environmental reviews, and GST / HST collection costs;
 - (d) rent that is paid for Plant, or an amount equivalent to the said rent if the Plant is owned by the Contractor, that is necessary for and used in the performance of the Work, if the rent or the equivalent amount is reasonable and use of that Plant has been approved by Canada;
 - (e) payments for maintaining and operating Plant necessary for and used in the performance of the Work, and payments for effecting repairs thereto that, in the opinion of Canada, are necessary for the proper performance of the Contract, other than payments for any repairs to the Plant arising out of defects existing before its allocation to the Work;
 - (f) payments for Material that is necessary for and incorporated in the Work, or that is necessary for and consumed in the performance of the Contract;
 - (g) payments for preparation, delivery, handling, erection, installation, inspection, protection and removal of the Plant and Material necessary for and used in the performance of the Contract; and
 - (h) any other payments made by the Contractor with the approval Canada that are necessary for the performance of the Contract in accordance with the Contract Documents.

GC6.4.3 Price Determination - Variations in Tendered Quantities

- 1) Except as provided in paragraphs 2), 3), 4) and 5) of GC6.4.3, if it appears that the final quantity of labour, Plant and Material under a price per unit item shall exceed or be less than the estimated tendered quantity, the Contractor shall perform the Work or supply the Plant and Material required to complete the item and payment shall be made for the actual Work performed or Plant and Material supplied at the price per unit set out in the Contract.
- 2) If the final quantity of the price per unit item exceeds the estimated tendered quantity by more than 15%, either party to the Contract may make a written request to the other party to negotiate an

amended price per unit for that portion of the item which exceeds 115% of the estimated tendered quantity, and to facilitate approval of any amended price per unit, the Contractor shall, on request, provide Canada with

- (a) detailed records of the actual cost to the Contractor of performing or supplying the tendered quantity for the price per unit item up to the time the negotiation was requested; and
 - (b) the estimated unit cost of labour, Plant and Material required for the portion of the item that is in excess of 115% of the tendered quantity.
- 3) If agreement is not reached as contemplated in paragraph 2) of GC6.4.3, the price per unit shall be determined in accordance with GC6.4.2.
- 4) If it appears that the final quantity of labour, Plant and Material under a price per unit item shall be less than 85% of the estimated tendered quantity, either party to the Contract may make a written request to the other party to negotiate a change to the price per unit for the item if
- (a) there is a demonstrable difference between the unit cost to the Contractor of performing or supplying the estimated tendered quantity and the unit cost to the Contractor for performing or supplying the final quantity; and
 - (b) the difference in unit cost is due solely to the decrease in quantity and not to any other cause.
- 5) For the purposes of the negotiation referred to in paragraph 4) of GC6.4.3
- (a) the onus of establishing, justifying and quantifying a proposed change lies with the party making the request for negotiation; and
 - (b) in no event shall the total price for an item that has been amended as a result of a reduction in quantity pursuant to paragraph 4) of GC6.4.3 exceed the amount that would have been payable to the Contractor had 85% of the tendered quantity actually been performed or supplied.

GC6.5 DELAYS AND EXTENSION OF TIME

- 1) Upon application of the Contractor made before the date first fixed for completion of the Work or before any other date previously fixed under this clause, Canada may extend the time for completion of the Work by fixing a new date if Canada determines that causes beyond the control of the Contractor have delayed its completion.
- 2) The Contractor's application shall be accompanied by the written consent of the bonding company whose bond forms part of the Contract Security.
- 3) Subject to paragraph 4) of GC6.5, no payment, other than a payment that is expressly stipulated in the Contract, shall be made by Canada to the Contractor for any extra expense, loss or damage incurred or sustained by the Contractor due to delay, whether or not the delay is caused by circumstances beyond the control of the Contractor.
- 4) If the Contractor incurs or sustains any extra expense or any loss or damage that is directly attributable to any neglect or delay that occurs after the date of the Contract on the part of Canada in providing any information or in doing any act that the Contract either expressly requires Canada to do or that would ordinarily be done by an owner in accordance with the practice of the trade, the Contractor shall give Canada written notice of intention to claim for that extra expense or loss or damage within ten working days of the date the neglect or delay first occurred.

- 5) When the Contractor has given a notice referred to in paragraph 4) of GC6.5, the Contractor shall give Canada a written claim for the extra expense, loss or damage no later than 30 days after the date that a Certificate of Completion is issued and not afterwards.
- 6) A written claim referred to in paragraph 5) of GC6.5 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified and the Contractor shall supply such further and other information for that purpose as Canada may require.
- 7) If Canada determines that a claim referred to in paragraph 5) of GC6.5 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.
- 8) If the Contractor fails to give a notice referred to in paragraph 4) and a claim referred to in paragraph 5) of GC6.5 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.

GC6.6 ALLOWABLE COSTS FOR CONTRACT CHANGES UNDER GC6.4.1

GC6.6.1 General

- 1) The Contractor shall submit a cost estimate breakdown for each contemplated change, in accordance with paragraph 4) of GC6.4.1 PRICE DETERMINATION PRIOR TO UNDERTAKING CHANGES. The breakdown shall itemize all labour, material, plant and equipment costs estimated by the Contractor and subcontractors, and the amount of each allowance.
- 2) It is the responsibility of the Contractor to ensure that all prices included in the Contractor's breakdown to the NCC, including those of subcontractors, are fair and reasonable in view of the terms expressed herein.
- 3) The labour hours required for the contemplated change shall be based on the estimated number of hours to perform the work.
- 4) Time spent by a working foreman may be included in the number of labour hours, at a rate agreed to in writing by the Contractor and the NCC.
- 5) Time attributable to material handling, productivity factors and approved rest periods is to be included in the number of hours required by the contemplated change and will not be paid as a separate item under hourly rates.
- 6) Allowances referred to in section 04 below are not to be included in the hourly labour rates.
- 7) Credit for work deleted will only be for the work directly associated with the change.
- 8) When a change deletes work which has not yet been performed, the NCC is entitled to an adjustment in the Contract Amount equal to the cost the Contractor would have incurred had the work not been deleted.
- 9) Allowances referred to in Section 04 below shall not be applied to any credit amounts for deleted work.
- 10) In those cases where the change involves additions and deletions to the work, the allowances referred to in section 04 below shall apply only when the cost of the additions minus the cost of the deletions would result in an increase in the Contract Amount. The percentage allowance shall only be applied to that portion of the costs of the additions that is in excess of the cost of the deletions.

- 11) If the contemplated change in the work necessitates a change in the contract completion date, or has an impact on the work, the Contractor shall identify and include the resulting cost in the breakdown.

GC6.6.2 Hourly Labour Rates

- 1) The hourly labour rates listed in the Contractor's breakdown shall be determined in accordance with the collective agreements that are applicable at the site of the work and shall include:
- (a) the base rate of pay;
 - (b) vacation pay;
 - (c) benefits which includes:
 - (i) welfare contributions;
 - (ii) pension contributions;
 - (iii) union dues;
 - (iv) training and industry funds contributions; and
 - (v) other applicable benefits, if any, that can be substantiated by the Contractor.
 - (d) statutory and legislated requirements, assessed and payable under statutory authority, which includes:
 - (i) Employment Insurance contributions;
 - (ii) Canada Pension Plan or Québec Pension Plan contributions;
 - (ii) Worker's Compensation Board or Commission de la santé et de la sécurité du travail premiums;
 - (iv) Public Liability and Property Damage insurance premiums; and
 - (v) health tax premiums.
- 2) In the case of nonunion labour, all rates claimed shall be in accordance with the terms of the Labour Conditions forming part of this contract and the Contractor must provide satisfactory proof of the rates actually paid.

GC6.6.3 Material, Plant and Equipment Costs

- 1) The costs of all purchases and rentals must be based on the actual amount paid to the suppliers by the Contractor or subcontractor and said costs are to include all applicable discounts.

GC6.6.4 Allowance to the Contractor or Subcontractor

- 1) The allowances determined in accordance with paragraph 1) of GC6.4.1 PRICE DETERMINATION PRIOR TO UNDERTAKING CHANGES shall be considered as full compensation for:
- (a) supervision, co-ordination, administration, overhead, margin and the risk of undertaking the work within the stipulated amount; and

- (b) miscellaneous additional costs related to:
 - (i) the purchase or rental of material, plant and equipment;
 - (ii) the purchase of small tools and supplies;
 - (iii) safety and protection measures; and
 - (iv) permits, bonds, insurance, engineering, as built drawings, commissioning and site office.

- GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS
- GC7.2 SUSPENSION OF WORK
- GC7.3 TERMINATION OF CONTRACT
- GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN

GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS

- 1) By giving notice in writing to the Contractor in accordance with GC2.3 NOTICES, the NCC, without any other authorization, may take all or any part of the Work out of the Contractor's hands, and may employ such means as the NCC sees fit to have the Work completed if the Contractor:
 - (a) fails to remedy any delay in the commencement or default in the diligent performance of the Work to the satisfaction of the NCC within six days of the NCC giving notice to the Contractor in writing in accordance with GC2.3 NOTICES;
 - (b) defaults in the completion of any part of the Work within the time fixed for its completion by the Contract;
 - (c) becomes insolvent, or has committed an act of bankruptcy, and has neither made a proposal to its creditors nor filed a notice of intention to make such a proposal, pursuant to the Bankruptcy and Insolvency Act;
 - (d) abandons the work;
 - (e) makes an assignment of the Contract without the consent required by GC1.16 ASSIGNMENT;
or
 - (f) otherwise fails to observe or perform any of the provisions of the Contract.
- 2) If the whole or any part of the Work is taken out of the Contractor's hands, the Contractor's right to any further payment that is due or accruing due under the Contract is, subject only to paragraph 3) of GC7.1, extinguished, and the Contractor is liable to pay the NCC, upon demand, an amount that is equal to the amount of all loss and damage incurred or sustained by the NCC in respect of the Contractor's failure to complete the Work.
- 3) If the whole or any part of the Work that is taken out of the Contractor's hands is completed by the NCC, the NCC may pay the Contractor the amount, if any, of the holdback or a progress claim as determined by the NCC that had accrued and was due prior to the date on which the Work was taken out of the Contractor's hands and that is not required for the purposes of having the Work performed or of compensating the NCC for any other loss or damage incurred or sustained by reason of the Contractor's default.
- 4) The taking of the Work or any part thereof out of the Contractor's hands does not relieve the Contractor from any obligation under the Contract or imposed by law except the obligation to complete the performance of that part of the Work that was taken out of the Contractor's hands.
- 5) If the Work or any part thereof is taken out of the Contractor's hands, all Plant and Material and the interest of the Contractor, or its suppliers or subcontractors at any tier, in all real property, licences, powers and privileges acquired, used or provided by the Contractor, or its suppliers or subcontractors at any tier, under the Contract shall continue to be the property of the NCC without compensation.
- 6) When the NCC certifies that any Plant, Material, or any interest of the Contractor is no longer required for the purposes of the Work, or that it is not in the interests of the NCC to retain that Plant, Material, or interest, it shall revert to the Contractor.

- 7) If the Contractor has become insolvent or has committed an act of bankruptcy, and has either made a proposal to its creditors or filed a notice of intention to make such a proposal, pursuant to the Bankruptcy and Insolvency Act, the Contractor shall immediately forward a copy of the proposal or the notice of intention to the NCC.

GC7.2 SUSPENSION OF WORK

- 1) When, in the NCC's opinion, it is in the public interest to do so, the NCC may require the Contractor to suspend performance of the Work either for a specified or an unspecified period, by giving a notice of suspension in writing to the Contractor in accordance with GC2.3 NOTICES.
- 2) When a notice of suspension is received by the Contractor, the Contractor shall suspend all operations in respect of the Work except those that the NCC determines are necessary for the care and preservation of the Work, Plant and Material.
- 3) During a period of suspension, the Contractor shall not remove any part of the Work, Plant or Material from its site without the consent of the NCC.
- 4) If a period of suspension is 60 days or less, the Contractor shall resume the performance of the Work on the expiration of that period, and the Contractor is entitled to be paid the extra costs necessarily incurred by the Contractor as a result of the suspension, determined in accordance with GC6.4 DETERMINATION OF PRICE.
- 5) If a period of suspension is more than 60 days, the NCC and the Contractor may agree that the performance of the Work shall be continued by the Contractor, and the Contractor shall resume performance of the Work subject to any terms and conditions agreed upon by the NCC and the Contractor. If the NCC and the Contractor do not agree that performance of the Work shall be continued by the Contractor, or upon the terms and conditions under which the Contractor shall continue the Work, the notice of suspension shall be deemed to be a notice of termination pursuant to GC7.3 TERMINATION OF CONTRACT.

GC7.3 TERMINATION OF CONTRACT

- 1) The NCC may terminate the Contract at any time by giving a notice of termination in writing to the Contractor in accordance with GC2.3 NOTICES.
- 2) If the Contractor receives a notice of termination, the Contractor shall forthwith cease all operations in performance of the Contract, subject to any conditions stipulated in the notice.
- 3) Subject to paragraph 4) of GC7.3, if the Contract is terminated, the NCC shall pay the Contractor an amount determined to be due to the Contractor pursuant to GC6.4 DETERMINATION OF PRICE less the aggregate of all amounts that were paid to the Contractor by the NCC and all amounts that are due to the NCC from the Contractor pursuant to the Contract.
- 4) In no event shall the total amount payable by the NCC to the Contractor exceed the amount, calculated in accordance with GC5 TERMS OF PAYMENT, that would have been payable to the Contractor had the Contractor completed the Work.
- 5) Payment to the Contractor, if any, shall be made as soon as practicable under the circumstances.

GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN

- 1) If the Work is taken out of the Contractor's hands, or the Contractor is in breach of, or in default under, the Contract, the NCC may convert a security deposit to the NCC's own use.

- 2) If the NCC converts a security deposit, the amount realized shall be deemed to be an amount due from the NCC to the Contractor under the Contract.
- 3) Any balance of the amount realized that remains after payment of all losses, damage and claims of the NCC and others shall be paid by the NCC to the Contractor if, in the opinion of the NCC, it is not required for the purposes of the Contract.

- 1) The Contractor may, within 10 days after the communication to the Contractor of any decision or direction referred to in GC6.1 CHANGES IN THE WORK and GC2.2 INTERPRETATION OF CONTRACT, protest that decision or direction.
- 2) A protest referred to in paragraph 1) of GC8 shall be in writing, contain full reasons for the protest, be signed by the Contractor and be given to the NCC.
- 3) If the Contractor gives a protest pursuant to paragraph 2) of GC8, any compliance by the Contractor with the decision or direction that was protested shall not be construed as an admission by the Contractor of the correctness of that decision or direction, or prevent the Contractor from taking whatever action the Contractor considers appropriate in the circumstances.
- 4) The giving of a protest by the Contractor pursuant to paragraph 2) of GC8 shall not relieve the Contractor from complying with the decision or direction that is the subject of the protest.
- 5) Subject to paragraph 6) of GC8, the Contractor shall take any action referred to in paragraph 3) of GC8 within 3 months after the date of the Certificate of Completion referred to in GC5.6 FINAL COMPLETION and not afterwards, except where it is otherwise provided by law.
- 6) The Contractor shall take any action referred to in paragraph 3) of GC8 resulting from a direction under GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK, within 3 months after the expiry of a warranty or guarantee period and not afterwards, except where it is otherwise provided by law.
- 7) Subject to paragraph 8) of GC8, if the NCC determines that the Contractor's protest is justified, the NCC shall pay the Contractor the cost of the additional labour, Plant and Material necessarily incurred by the Contractor in carrying out the protested decision or direction.
- 8) Costs referred to in paragraph 7) of GC8 shall be calculated in accordance with GC6.4 DETERMINATION OF PRICE.

- GC9.1 OBLIGATION TO PROVIDE CONTRACT SECURITY
- GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY
- GC9.3 IRREVOCABLE STANDBY LETTER OF CREDIT

GC9.1 OBLIGATION TO PROVIDE CONTRACT SECURITY

- 1) The Contractor shall, at the Contractor's expense and within 7 days after the date that the Contractor receives notice that the Contractor's bid was accepted by the NCC, obtain and deliver Contract Security to the NCC in one or more of the forms prescribed in GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY.
- 2) If the whole or a part of the Contract Security provided is in the form of a security deposit, it shall be held and disposed of in accordance with GC5.13 RETURN OF SECURITY DEPOSIT and GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN.
- 3) If a part of the Contract Security provided is in the form of a labour and material payment bond, the Contractor shall post a copy of that bond at the site of the Work.
- 4) It is a condition precedent to the release of the first progress payment that the Contractor has provided the Contract Security as specified herein.
- 5) In addition to the limitation imposed in paragraph 4) of GC9.1, the Contractor further acknowledges and agrees that it will not be entitled to have access to the site, nor to commence work pursuant to this contract until it has delivered the Contract Security as specified herein.

GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY

- 1) The Contractor shall deliver to the NCC (a), (b) or (c):
 - (a) A performance bond and a labour and material payment bond each in an amount that is equal to not less than 50% of the Contract Amount including taxes
 - (b) A labour and material payment bond in an amount that is equal to not less than 50% of the Contract Amount including taxes, and a security deposit in an amount that is equal to not less than 10% of the Contract Amount including taxes.
 - (c) A security deposit in an amount prescribed by subparagraph 1)(b) of GC9.2, plus an additional amount that is equal to 10% of the Contract Amount including taxes.
- 2) The amount of a security deposit referred to in subparagraph 1)(b) of GC9.2 shall not exceed \$2,000,000 regardless of the Contract Amount including taxes.
- 3) A performance bond and a labour and material payment bond referred to in paragraph 1) of GC9.2 shall be in a form and be issued by a bonding or surety company that is approved by the NCC.
 - (a) The approved form for the performance bond is enclosed at the end of GC9.
 - (b) The approved form for the labour and material payment bond is enclosed at the end of GC9
 - (c) The list of approved bonding or surety companies is displayed at the following Website:
<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12027> .
- 4) A security deposit referred to in subparagraphs 1)(b) and 1)(c) of GC9.2 shall be in the form of:

- (a) a bill of exchange, bank draft or money order made payable to the NCC and certified by an approved financial institution or drawn by an approved financial institution on itself; or
 - (b) bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada.
- 5) For the purposes of subparagraph 4)(a) of GC9.2:
- (a) a bill of exchange is an unconditional order in writing signed by the Contractor and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable future time a certain sum of money to, or to the order of, the NCC;
 - (b) if a bill of exchange, bank draft or money order is certified by or drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in subparagraph 5)(c) of GC9.2, either by letter or by a stamped certification on the bill of exchange, bank draft or money; and
 - (c) An approved financial institution is:
 - (i) a corporation or institution that is a member of the Canadian Payments Association as defined in the Canadian Payments Act;
 - (ii) a corporation that accepts deposits that are insured, to the maximum permitted by law, by the Canada Deposit Insurance Corporation or the Régie de l'assurance-dépôts du Québec;
 - (iii) a corporation that accepts deposits from the public if repayment of the deposit is guaranteed by Her Majesty the Queen in right of a province;
 - (iv) a corporation, association or federation incorporated or organized as a credit union or co-operative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137(6) of the Income Tax Act; or
 - (v) Canada Post Corporation.
- 6) Bonds referred to in subparagraph 4)(b) of GC9.2 shall be provided on the basis of their market value current at the date of the Contract, and shall be:
- (a) made payable to bearer; or
 - (b) accompanied by a duly executed instrument of transfer of the bonds to the NCC in the form prescribed by the Domestic Bonds of Canada Regulations; or
 - (c) registered as to principal, or as to principal and interest, in the name of the NCC pursuant to the Domestic Bonds of Canada Regulations.

GC9.3 IRREVOCABLE STANDBY LETTER OF CREDIT

- 1) As an alternative to a security deposit, an irrevocable standby letter of credit is acceptable to the NCC, the amount of which shall be determined in the same manner as a security deposit referred to in GC9.2
TYPES AND AMOUNTS OF CONTRACT SECURITY.
- 2) An irrevocable standby letter of credit shall:
 - (a) be an arrangement, however named or described, whereby a financial institution (the "Issuer") acting at the request and on the instructions of a customer (the "Applicant") or on its own behalf:

- (i) is to make a payment to, or to the order of, the NCC as the beneficiary;
- (ii) is to accept and pay bills of exchange drawn by the NCC;
- (ii) authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or
- (iv) authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with;
- (b) state the face amount that may be drawn against it;
- (c) state its expiry date;
- (d) provide for sight payment to the NCC by way of the financial institution's draft against presentation of a written demand for payment signed by the NCC;
- (e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;
- (f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600;
- (g) clearly specify that it is irrevocable or deemed to be irrevocable pursuant to article 6 c) of the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600; and
- (h) be issued or confirmed, in either official language in a format left to the discretion of the issuer or confirmer, by an approved financial institution on its letterhead.

PERFORMANCE BOND

Bond Number _____

Amount \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal,
hereinafter called the Principal, and _____ as Surety, hereinafter

called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto the National Capital Commission as

Obligee, hereinafter called the NCC, In the amount of _____ dollars

(\$ _____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the

Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, _____. WHEREAS, the Principal has

entered into a Contract with the NCC, dated the _____ day of _____, _____,

for: _____.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if the Principal shall well and faithfully observe and perform all the obligations on the part of the Principal to be observed and performed in connection with the Contract, then this obligation shall be void, otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. Whenever the Principal shall be, and declared by the NCC to be, in default under the Contract, the Surety shall
 - (a) if the work is not taken out of the Principal's hands, remedy the default of the Principal,
 - (b) if the work is taken out of the Principal's hands and the NCC directs the Surety to undertake the completion of the work, complete the work in accordance with the Contract provided that if a contract is entered into for the completion of the work,
 - (i) it shall be between the Surety and the completing contractor, and
 - (ii) the selection of such completing contractor shall be subject to the approval of the NCC,
 - (c) if the work is taken out of the Principal's hands and the NCC, after reasonable notice to the Surety, does not direct the Surety to undertake the completion of the work, assume the financial responsibility for the cost of completion in excess of the moneys available to the NCC under the Contract,
 - (d) be liable for and pay all the excess costs of completion of the Contract, and
 - (e) not be entitled to any Contract moneys earned by the Principal, up to the date of his default on the Contract and any holdbacks relating to such earned Contract moneys held by the NCC, and the liability of the Surety under this Bond shall remain unchanged provided, however, and without restricting the generality of the foregoing, upon the completion of the Contract to the satisfaction of the NCC, any Contract moneys earned by the Principal or holdbacks related thereto held by the NCC may be paid to the Surety by the NCC.
2. The Surety shall not be liable for a greater sum than the amount specified in this Bond.
3. No suit or action shall be instituted by the NCC herein against the Surety pursuant to these presents after the expiration of two (2) years from the date on which final payment under the Contract is payable.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and year first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

Note: Affix Corporate seal if applicable.

Principal _____

Witness _____

Surety _____

LABOUR AND MATERIAL PAYMENT BOND

Bond Number _____

Amount \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal,
hereinafter called the Principal, and _____ as Surety, hereinafter

called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto the National Capital Commission as Oblige, hereinafter called the NCC, In the amount of _____ dollars

(\$ _____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, _____ . WHEREAS, the Principal has entered into a Contract with the NCC, dated the _____ day of _____, _____, for: _____

_____ which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that, if payment is promptly made to all Claimants who have performed labour or services or supplied material in connection with the Contract and any and all duly authorized modifications and extensions of the Contract that may hereafter be made, notice of which modifications and extensions to the Surety being hereby waived, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. For the purpose of this bond, a Claimant is defined as one having a direct contract with the Principal or any Sub-Contractor of the Principal for labour, material or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone services or rental of equipment (but excluding rental of equipment where the rent pursuant to an agreement is to be applied towards the purchase price thereof) directly applicable to the Contract.
2. For the purpose of this Bond, no payment is required to be made in respect of a claim for payment for labour or services performed or material supplied in connection with the Contract that represents a capital expenditure, overhead or general administration costs incurred by the Principal during the currency or in respect of the Contract.
3. The Principal and the Surety hereby jointly and severally agree with the NCC that if any Claimant has not been paid as provided for under the terms of his contract with the Principal or a Sub-Contractor of the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's labour or service was done or performed or materials were supplied by such Claimant, the NCC may sue on this bond, have the right to prosecute the suit to final judgment for such sum or sums as may be due and have execution thereon; and such right of the NCC is assigned by virtue of Part VIII of the Financial Administration Act to such Claimant.
4. For the purpose of this bond the liability of the Surety and the Principal to make payment to any claimant not having a contract directly with the Principal shall be limited to that amount which the Principal would have been obliged to pay to such claimant had the provisions of the applicable provincial or territorial legislation on lien or privileges been applicable to the work. A claimant need not comply with provisions of such legislation setting out steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had. Any such claimant shall be entitled to pursue a claim and to recover judgment hereunder subject to the terms and notification provisions of the Bond.
5. Any material change in the Contract between the Principal and the NCC shall not prejudice the rights or interest of any Claimant under this Bond who is not instrumental in bringing about or has not caused such change.
6. No suit or action shall be commenced hereunder by any Claimant:
 - (a) Unless such Claimant shall have given written notice within the time limits hereinafter set forth to the Principal and the Surety above named, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal and the Surety at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the Contract is located. Such notice shall be given
 - (i) in respect of any claim for the amount or any portion thereof required to be held back from the Claimant by the Principal or by the Sub-Contractor of the Principal under either the terms of the Claimant's Contract with the Principal or the Claimant's Contract with the Sub-Contractor of the Principal within one hundred and twenty (120) days after such Claimant should have been paid in full under this Contract;

- (ii) in respect of any claim other than for the holdback or portion thereof referred to above within one hundred and twenty (120) days after the date upon which such Claimant did or performed the last of the service, work or labour or furnished the last of the materials for which such claim is made under the Claimant's Contract with the Principal or a Sub-Contractor of the Principal
 - (b) After the expiration of one (1) year following the date on which the Principal ceased work on the said Contract, including work performed under the guarantees provided in the Contract;
 - (c) Other than in a court of competent jurisdiction in the province or district of Canada in which the subject matter of the Contract or any part thereof is situated and not elsewhere, and the parties hereto hereby agree to submit to the jurisdiction of such court.
7. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.
8. The Surety shall not be entitled to claim any moneys relating to the Contract and the liability of the Surety under this Bond shall remain unchanged and, without restricting the generality of the foregoing, the Surety shall pay all valid claims of Claimants under this Bond before any moneys relating to the Contract held by the NCC are paid to the Surety by the NCC.
9. The Surety shall not be liable for a greater sum than the amount specified in this bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and year first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

Principal _____

Witness _____

Surety _____

Note: Affix Corporate seal if applicable.

- GC10.1 INSURANCE CONTRACTS
- GC10.2 INSURANCE PROCEEDS
- GC10.3 INSURANCE TERMS
 - GC10.3.1 General
 - GC10.3.1.1 Proof of Insurance
 - GC10.3.1.2 Payment of Deductible
 - GC10.3.2 Commercial General Liability
 - GC10.3.2.1 Scope of Policy
 - GC10.3.2.2 Insured
 - GC10.3.2.3 Period of Insurance
 - GC10.3.3 Builder's Risk / Installation Floater
 - GC10.3.3.1 Scope of Policy
 - GC10.3.3.2 Amount of Insurance
 - GC10.3.3.3 Insurance Proceeds

GC10.1 INSURANCE CONTRACTS

- 1) The Contractor shall, at the Contractor's expense, obtain and maintain insurance contracts in respect of the work and shall provide evidence thereof to the NCC in accordance with the requirements of GC10.
- 2) The insurance contracts referred to in paragraph 1) of GC10.1 shall:
 - (a) be in a form, of the nature, in the amounts, for the periods and containing the terms and conditions specified in GC10; and
 - (b) provide for the payment of claims under such insurance contracts in accordance with GC10.2 INSURANCE PROCEEDS.

GC10.2 INSURANCE PROCEEDS

- 1) In the case of a claim payable under a Builders Risk/Installation (All Risks) insurance contract maintained by the Contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid directly to the NCC, and:
 - (a) the monies so paid shall be held by the NCC for the purposes of the contract; or
 - (b) if the NCC elects, shall be retained by the NCC, in which event they vest in the NCC absolutely.
- 2) In the case of a claim payable under a General Liability insurance contract maintained by the Contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid by the insurer directly to the claimant.
- 3) If an election is made pursuant to paragraph 1) of GC10.2, the NCC may cause an audit to be made of the accounts of the Contractor and of the NCC in respect of the part of the work that was lost, damaged or destroyed for the purpose of establishing the difference, if any, between:
 - (a) the aggregate of the amount of the loss or damage suffered or sustained by the NCC, including any costs incurred in respect of the clearing of the work and its site and any other amount that is payable by the Contractor to the NCC under the contract, minus any monies retained pursuant to subparagraph 1)(b) of GC10.2; and
 - (b) the aggregate of the amounts payable by the NCC to the Contractor pursuant to the contract up to the date of the loss or damage.

- 4) A difference that is established pursuant to paragraph 3) of GC10.2 shall be paid forthwith by the party who is determined by the audit to be the debtor to the party who is determined by the audit to be the creditor.
- 5) When payment of a deficiency has been made pursuant to paragraph 4) of GC10.2, all rights and obligations of the NCC and the Contractor under the contract shall, with respect only to the part of the work that was the subject of the audit referred to in paragraph 3) of GC10.2, be deemed to have been expended and discharged.
- 6) If an election is not made pursuant to subparagraph 1)(b) of GC10.2, the Contractor shall, subject to paragraph 7) of GC10.2, clear and clean the work and its site and restore and replace the part of the work that was lost, damaged or destroyed at the Contractor's expense as if that part of the work had not yet been performed.
- 7) When the Contractor clears and cleans the work and its site and restores and replaces the work referred to in paragraph 6) of GC10.2, the NCC shall pay the Contractor out of the monies referred to in paragraph 1) of GC10.2 so far as they will thereunto extend.
- 8) Subject to paragraph 7) of GC10.2, payment by the NCC pursuant to paragraph 7) of GC10.2 shall be made in accordance with the contract but the amount of each payment shall be 100% of the amount claimed notwithstanding subparagraphs 3)(a) and 3)(b) of GC5.4 PROGRESS PAYMENT.

GC10.3 INSURANCE TERMS

GC10.3.1 General

GC10.3.1.1 Proof of Insurance

- 1) Before commencement of the Work, and prior to contract award, the Contractor shall deposit with the NCC a Certificate of Insurance (approved Insurance form is enclosed at the end of this section).
- 2) Upon request by the NCC, the Contractor shall provide originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the provisions contained herein.
- 3) The insurance policies shall be endorsed to provide the NCC with no less than 30 days notice in writing in advance of a cancellation of insurance or any reduction in coverage.

GC10.3.1.2 Payment of Deductible

- 1) Any moneys paid or payable in respect of a deductible amount shall be borne exclusively by the Contractor.

GC10.3.2 Commercial General Liability

GC10.3.2.1 Scope of Policy

- 1) The insurance coverage provided shall not be less than that provided by IBC Form 2100, as amended from time to time, and shall have:
 - (a) an Each Occurrence Limit of not less than \$5,000,000;
 - (b) a Products/Completed Operations Aggregate Limit of not less than \$5,000,000; and
 - (c) a General Aggregate Limit of not be less than \$10,000,000 per policy year, if the policy is subject to such a limit.

- 2) The policy shall either include or be endorsed to include coverage for the following exposures or hazards if the Work is subject thereto:
 - (a) Blasting;
 - (b) Pile driving and caisson work;
 - (c) Underpinning;
 - (d) Removal or weakening of support of any building or land whether such support be natural or otherwise if the work is performed by the insured Contractor.

GC10.3.2.2 Insured

- 1) The policy shall insure the Contractor and shall include the NCC as an additional Insured, with respect to liability arising out of the operations of the Contractor with regard to the work.

GC10.3.2.3 Period of Insurance

- 1) Unless otherwise directed in writing by the NCC, or, otherwise stipulated elsewhere herein, the policy required herein shall be in force and be maintained from the date of contract award until the day of issue of the Certificate of Completion except that the coverage for Completed Operations Liability shall, in any event, be maintained for a period of at least six (6) years beyond the date of the Certificate of Substantial Performance.

GC10.3.3 Builder's Risk / Installation Floater

GC10.3.3.1 Scope of Policy

- 1) The insurance coverage provided by a Builder's Risk policy or an Installation Floater policy shall not be less than that provided by IBC Forms 4042 and 4047, as amended from time to time.
- 2) The policy shall permit use and occupancy of the project, or any part thereof, where such use and occupancy is for the purposes for which the project is intended upon completion.
- 3) The policy may exclude or be endorsed to exclude coverage for loss or damage caused by any of the following:
 - (a) Asbestos;
 - (b) Fungi or spores;
 - (c) Cyber;
 - (d) Terrorism.

GC10.3.3.2 Amount of Insurance

- 1) The amount of insurance shall not be less than the sum of the contract value plus the declared value (if any) set forth in the contract documents of all material and equipment supplied by the NCC at the site of the project to be incorporated into and form part of the finished Work. If the value of the Work is changed, the policy shall be changed to reflect the revised contract value.

GC10.3.3.3 Insurance Proceeds

- 1) The policy shall provide that the proceeds thereof are payable to the NCC may direct in accordance with GC10.2, "Insurance Proceeds".
- 2) The Contractor shall, without delay, do such things and execute such documents as are necessary to effect payment of the proceeds.

• To be completed by the insurer / À être rempli par l'assureur

CONTRACT / MARCHÉ					
Description and location of work / Description et endroit des travaux				Contract no. / N° de contrat	
INSURER / ASSUREUR					
Name / Nom					
Address / Adresse					
No., Street / N°, rue		City / Ville		Province	Postal code / Code postal
BROKER / COURTIER					
Name / Nom					
Address / Adresse					
No., Street / N°, rue		City / Ville		Province	Postal code / Code postal
INSURED / ASSURÉ					
Name of contractor / Nom de l'entrepreneur					
Address / Adresse					
No., Street / N°, rue		City / Ville		Province	Postal code / Code postal
ADDITIONAL INSURED / ASSURÉ ADDITIONNEL					
The National Capital Commission / La Commission de la capitale nationale					
This insurer certifies that the following policies of insurance are at present in force covering all operations of the Insured, in connection with the contract made between the named insured and the National Capital Commission.					
L'assureur atteste que les polices d'assurances suivantes sont présentement en vigueur et couvrent toutes les activités de l'assuré en fonction du marché conclu entre l'Assuré dénommé la Commission de la capitale nationale					
POLICY / POLICE					
Type Genre	Number Numéro	Inception Date Date d'effet	Expiry Date Date d'expiration	Limit of Liability Limites de garantie	
Commercial General Liability Responsabilité civile des entreprises					
Builder's Risk "All Risks" Assurance des chantiers « tous risques »					
Installation Floater "All Risks" Risques d'installation « tous risques »					
Other (list) / Autre (énumérer)					
Each of these policies includes the coverages and provisions as specified in Insurance Terms and each policy has been endorsed to cover the National Capital Commission as an Additional Insured. The Insurer agrees to notify the National Capital Commission in writing thirty (30) days prior to any material change in, or cancellation of any policy or coverage.			Chacune des présentes polices renferment des garanties et dispositions spécifiées aux Conditions d'assurance, et chaque police a été amendée pour couvrir la Commission de la capitale nationale en tant qu'assuré additionnel. L'assureur convient de donner un préavis de trente (30) jours à la Commission de la capitale nationale en cas de changement visant la garantie d'assurance ou les conditions ou de l'annulation de n'importe quelle police ou garantie.		
Name of Insurer's Office or Authorized Employee / Nom du cadre ou de la personne autorisée			Telephone number / Numéro de téléphone		
Signature			Date		

1. General

- 1.1 In this Contract “OHS” means “occupational health and safety”.
- 1.2 With respect to the work to be performed under the Contract, the Contractor covenants and agrees to perform at, and to enforce conformity with, a standard equivalent to or greater than the best practices prevailing in the construction industry at that time.
- 1.3 The Contractor acknowledges that, to the extent that the following matters may be affected by conduct of the work, it is responsible for the:
- 1.3.1 health and safety of persons on site;
 - 1.3.2 safety of property on site;
 - 1.3.3 protection of persons adjacent to the site; and,
 - 1.3.4 protection of the environment.
- 1.4 Without limiting the generality of section 1.3, the Contractor acknowledges that it is required to, and covenants and agrees to, comply and to enforce compliance with all laws or regulations that may be applicable to the conduct of the work including, without limitation:
- (a) the provisions of the *Occupational Health and Safety Act* of Ontario and all regulations, policies or directives issued thereunder for work performed in Ontario;
 - (b) *La Loi sur la santé et la sécurité du travail* of Québec and all regulations, policies or directives issued thereunder for work performed in Québec;
 - (c) Applicable provisions of the *Canada Labour Code, Part II*;
 - (d) Employment standards legislation in the province(s) in which any part of the work is performed; and
 - (e) Any policies or directives issued by the NCC in respect of the subject matter of the contract.
- The NCC will present any such policies or directives referred to in paragraph (e) to the Contractor in written form by not later than the pre-construction meeting. The Contractor is obliged to ensure that the relevant policies and directives have been communicated to and acknowledged by all its employees and that they will be complied with. The NCC reserves the right to require the Contractor to produce evidence satisfactory to the NCC acting reasonably that the Contractor has discharged the foregoing obligations.
- 1.5 By entering into the Contract with the NCC, the Contractor represents and warrants to the NCC that it has informed itself of and is knowledgeable about the obligations imposed by the legislation referred to in 1.4. above.
- 1.6 For purposes of the relevant provincial OHS legislative regime the Contractor acknowledges and agrees that it is the “Constructor” and covenants to discharge and accept all liability for the performance of the obligations of the “Constructor” in respect of the work provided for in the Contract. Notwithstanding a determination by the relevant authority having jurisdiction that the NCC is the “Constructor” in the event of a dispute between the Contractor and the NCC, the Contractor acknowledges and agrees that the Contractor shall be financially responsible for the implementation of protective measures necessary to fulfill the obligations of the “Constructor”.

- 1.7 As between the NCC and the Contractor, the NCC's decision as to whether the Contractor is discharging its obligations in respect of OHS issues shall be definitive. Without limiting the generality of the foregoing, in the event of any dispute with respect to instructions given by the NCC's designated representative, the Contractor may note such dispute, but must nevertheless forthwith comply with any such instructions.
- 1.8 The Contractor hereby indemnifies and agrees to hold harmless the NCC, its agents and employees, from and against any and all claims, demands, losses, costs (including legal fees on a full indemnity basis), damages, actions, suits or proceedings (hereinafter collectively referred to as "claims") by third parties that arise out of or are attributable to the Contractor's errors or omissions in the performance of the Contract. Without limiting the generality of the foregoing, this indemnification extends to any claims related to any violation of any statute or regulation relating to OHS matters.
- 1.9 The NCC shall provide the contractor:
- 1.9.1 a written description of every known and foreseeable health and safety hazard to which persons employed in the performance of the work may be exposed because of the nature of the site;
 - 1.9.2 a list of any prescribed materials, equipment, devices and clothing necessary because of the nature of the site;
 - 1.9.3 with written information indicating the prescribed circumstances and manner to use all prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2; and,
 - 1.9.4 with a copy of any NCC policies and procedures that may be applicable in relation to the work site.
- 1.10 Without limiting the generality of 1.9, prior to the commencement of the work by the contractor, the contractor shall, at the contractor's expense:
- 1.10.1 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are informed of any health and safety hazard described pursuant to 1.9.1;
 - 1.10.2 provide all persons employed in the performance of the work or granted access to the work or its site with prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2;
 - 1.10.3 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are familiar with the prescribed circumstances and manner all prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2; and
 - 1.10.4 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are familiar with policies and procedures referred to in 1.9.4.

2. Qualifications of Personnel

- 2.1 By entering into this agreement the contractor represents and warrants that it has the requisite experience, training, formal certification and equipment to enable it to discharge the obligations enumerated in sections 1.3, 1.4, 1.5 and 1.6 above.
- 2.2 The Contractor represents and warrants that supervisory personnel employed by the Contractor in respect of performance of any part of the work have the requisite experience, authority, training, formal certification and equipment to ensure that the obligations enumerated in sections 1.3, 1.4, 1.5

and 1.6 above are discharged and agrees to deliver such evidence as may be required by the NCC from time to time to verify same.

3. Certification

- 3.1 After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver a Worker's Compensation Clearance Certificate. Where the duration of the project is greater than sixty days, the Contractor covenants and agrees to deliver up-dated certificates at least every 60 days. In the event of a failure by the Contractor to deliver up-dated certificates, the NCC shall be entitled to immediately terminate the contract without notice and without incurring any liability to the Contractor.
- 3.2 After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver historical information on its injury experience including any pertinent Worker's Compensation Experience Reports. Such historical information shall report data for the previous three years.

4. Plans Policies and Procedures

- 4.1 After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver for the review and approval of the NCC:
- (a) A copy of the contractor's OHS policy;
 - (b) A safety program and plan specific to the work to be performed pursuant to the Contract which plan shall include a risk assessment and analysis, a description of safe working methods, injury and incident reporting protocols, regular periodic reporting on compliance with OHS obligations including any policies, practices and procedures otherwise provided for herein, and a site-specific contingency and emergency response plan; and
 - (c) Health and safety training records of personnel and alternates responsible for OHS issues on site.

The Contractor covenants and agrees to deliver the necessary material safety data sheets for the review and approval of the NCC prior to entering the site to perform work related to the relevant material.

Approval by the NCC does not amend the provisions of the Contract with respect to the allocation of liability for discharging or failing to discharge OHS obligations. Such liability remains with the Contractor notwithstanding the granting of such approval.

- 4.2 The Contractor acknowledges and agrees that prior to commencement of work it must attend a pre-construction briefing at which any special or additional practices and procedures to be followed in completing the work are to be established. Without limiting the provisions of section 1.4(e) above, the representatives of the Contractor attending the briefing will be required to deliver a signed acknowledgement that the practices and procedures set out in the pre-construction briefing have been understood and will be complied with.
- 4.3 At any time and from time to time during the performance of the work, the NCC shall have the right to audit the manner in which the Contractor is discharging its OHS obligations and to determine whether the project specification and/or OHS policies, practices and procedures are being complied with. In the event that the audit discloses any failure by the Contractor to discharge such OHS obligations, the NCC shall be entitled to forthwith rectify at the Contractor's expense any such deficiency and the NCC shall have the further right to immediately terminate the contract without notice and without incurring any liability to the Contractor.

- 4.4 The Contractor covenants and agrees to conform with all requirements of the Workplace Hazardous Materials Information System.
- 4.5 The Contractor acknowledges and agrees that where required by any law or regulation applicable to the performance of the work it must establish and maintain a project health and safety committee. The contractor further acknowledges and agrees that it must enable staff to attend all relevant safety meetings, and that the cost of same, including costs attributable to standing down equipment is included in its bid price and is not independently recoverable.
- 4.6 Where required by the relevant provincial regulatory regime, the Contractor acknowledges and agrees that it is responsible for delivery of notice of the project to the relevant regulatory authority, and for the performance of any other administrative activity required to meet the obligations imposed in the pertinent provincial regulatory regime.
- 4.7 **(Optional depending on hazard or scope of project)**. The contractor covenants and agrees that it shall employ and assign to the work, a competent OHS professional as Health and Safety Coordinator that must:
- (a) have a minimum two (2) years' site-related working experience specific to activities associated with.(identify specific subject matter)
 - (b) have basic working knowledge of specified occupational safety and health regulations,
 - (c) be responsible for completing health and safety training session and ensuring that personnel not successfully completing the required training are not permitted to enter the site to perform the Work,
 - (d) be responsible for implementing, enforcing daily and monitoring the site-specific Health and Safety Plan, and
 - (e) be on site during execution of the Work.

The parties acknowledge that in lieu of employing an OHS professional, the Contractor may provide same by sub-contracting for such services.

- 4.8 Upon completion of the work the Contractor covenants and agrees to participate with the NCC in a post performance interview to evaluate the performance of the Contractor in respect of the OHS obligations under the contract. Without limiting the generality of the foregoing, the interview will identify areas of compliance and non-compliance in terms of:
- (a) actual performance of the work;
 - (b) reporting or procedural requirements;
 - (c) resolution of deficiencies.

The contractor acknowledges and agrees that the results of the post-completion interview may be relied upon by the NCC in evaluating bids subsequently submitted by the Contractor on other NCC projects.

Security Requirements

The NCC complies with Treasury Board's *Policy on Government Security* and consequently, it will require that the Contractor's employees submit to a personal security screening process (Security Clearance Form TBS/SCT 330-60E). The NCC may also perform a credit check when the duties or tasks to be performed require it or in the event of a criminal record containing a charge/offence of a financial nature.

The NCC reserves the right to not award the Contract until such time as the Contractor's core employees have obtained the required level of security screening as identified by the NCC's Corporate Security. In this case the level of security required will be **Reliability/Site Access/Secret**.

The NCC also reserves the right to request that the Contractor submit to a *Designated Organisation Screening* and/or *Facility Security Clearance*— depending on the nature of the information it will be entrusted with. In the event that the Contractor does not meet the requirements to obtain the requested clearance, the Contractor shall take the corrective measures recommended by the Canadian Industrial Security Directorate (of PWGSC) or by the NCC's Corporate Security in order to meet these requirements. If no corrective measures are possible or if the Contractor fails to take the recommended measures, then the Contractor shall be in default of its obligations under this Contract and the NCC shall have the rights and remedies listed in section 2.14, including the right to terminate the Contract without further notice to the Contractor.

Additional information

As part of their personal screening, individuals may be required to provide evidence of their status as a Canadian citizen or permanent resident as well as any other information/documentation requested by the NCC's Corporate Security in order to complete the screening.

The NCC reserves the right to refuse access to personnel who fail to obtain the required level of security screening.

The NCC reserves the right to impose additional security measures with respect to this Contract as the need arises.

Company Security Representative

The Contractor shall appoint one Company Security Representative (CSR) as well as one alternate (for companies who have more than five employees).

Selection criteria for the CSR and the alternate are the following:

- They must be employees of the Contractor;
- They must have a security clearance (the NCC will process the clearances once the individuals have been identified).

Responsibilities of the Company Security Representative

The CSR's responsibilities are the following:

- Act as liaison between the NCC's Corporate Security and the Contractor to ensure coordination;
- In collaboration with the NCC's Corporate Security, identify the Contractor's employees who will require access to NCC information/assets/sites **as well as any recurring subcontractors** (and their employees) who will require similar access and may not be supervised by the Contractor at all times during such access. Ensure that accurate and complete Personnel Security Screening documentation is

SECURITY REQUIREMENTS

submitted to the NCC's Corporate Security for the employees/subcontractors who have been identified;

- Ensure that employees/subcontractors, upon notification of having been granted a reliability status, sign the *Security Screening Certificate and Briefing Form* and return to the NCC's Corporate Security;
- Ensure that only persons who have been security screened to the appropriate level and who are on a "need-to-know basis" will have access to information and assets;
- Maintain a current list of security screened employees/subcontractors;
- Ensure proper safeguard of all information and assets, including any information/assets entrusted to subcontractors;
- If a Security incident or suspected breach of security occurs, prepare and submit to the NCC an occurrence report as soon as possible.

NATIONAL CAPITAL COMMISSION
GRANITE INSTALLATION PHASES 1&2
NCC DC-2611-110

CONSTRUCTION SPECIFICATIONS

ISSUED FOR TENDER

Sept 2017

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Bid Form

Section 01 00 00

Granite Installation Phase 1 & 2

Page 1 of 1

Project number: DC 2611-110

Sep-17

Item	Description	Units	Qty	Unit Price	Amount
1.0 General					
1.1	Mobilization and General Requirements	lump sum	1	-	\$
1.2	Selective Demolition and Removals	lump sum	1	-	\$
1.3	Excavation, Backfilling and Site Grading	lump sum	1	-	\$
1.4	Stop Work Order (allowance)	hours	250	-	\$
2.0 Landscape					
2.1	Granite: P1 Paver Stones	sq. m.	8	\$ -	\$ -
2.2	Granite: P2 Pavers Stones	sq. m.	202	\$ -	\$ -
2.3	Granite: P3 Pavers Stones	sq. m.	11	\$ -	\$ -
2.4	Granite: P4 Pavers Stones	sq. m.	3	\$ -	\$ -
2.5	Granite: B1 Border Stones	sq. m.	3	\$ -	\$ -
2.6	Granite: B2 Border Stones	sq. m.	1	\$ -	\$ -
2.7	Granular Paving Base (if required)	metric tonne	1	\$ -	\$ -
2.8	Asphalt Paving (if required)	sq. m.	1	\$ -	\$ -
2.9	Topsoil and Sodding	sq. m.	5	\$ -	\$ -
2.10	Wind Sensor Anemometer	lump sum	1	-	\$
Sub-Total					\$ -
HST 13%					\$ -
TOTAL					\$ -

GENERAL

0.1 Basis of Payments

- .1 Payments at the price per item listed in the Tender Form shall be full compensation for all labour, services and equipment as well as the supply, delivery and installation of all materials required for the proper execution of this contract.

PAY ITEMS DESCRIPTION

1.0 General

1.1 Mobilization and General Requirements

- .1 This item includes all general requirements to complete the project including general instructions, shop drawings, safety measures, environmental protection, installation of temporary protective fencing, including tree protection, hoarding and temporary facilities (including temporary access roads where required), traffic control (permits, signage, public notification of lane closures, and flag men at site entrance as required for public safety, etc.), maintenance of access roads where required including water for dust control as directed and cleaning.
- .2 Included in this lump sum price are all measures required to protect the existing surface (s) during construction, especially the Granite pavers and curbs.
- .3 Included in this lump sum price are all the general requirements identified on the drawings and specifications and all those required to complete the work of this contract not covered under specific items. Including the removal of all objects and materials required to undertake to work of this contract.
- .4 Included in this lump sum price are the completion of record drawings at the end of the Contract for provision to the NCC Representative
- .5 Included in this lump sum price are any costs related to the delay of construction between phases one and two
- .6 This item will be measured on a lump sum basis.

1.2 Selective Demolition and Removals

- .1 **Phase one (South pathway):** This item includes all demolition and disposal indicated including removal of existing granular layers to depth indicated and the salvage and reuse of stone dust around the drinking fountain (small quantity) and the removal and disposal of existing aluminum edging around drinking the fountain.
Phase two (North drive): This item includes all demolition and disposal indicated including removal of existing granular layers to depth indicated, removal and dispose of **existing asphalt** as shown on drawings.
- .2 This item consists of disposing off site of all surplus and of and/or storing removed materials, and reinstallation of items temporary stored according to the NCC Representative.
- .3 This item will be measured on a lump sum basis.

1.3 Excavation, Backfilling and Site Grading

- .1 This item consists of the stripping, common excavation, backfilling and rough grading allowing for finished ground elevations and specified surface treatments.
- .2 This item includes the hauling, handling, placement, shaping, compacting and trimming of earth and the management of excess material.
- .3 This item includes the proof rolling of the exposed surface, and the sub-excavation as required of any soft areas encountered during proof rolling.
- .4 This item includes the stripping and reuse of approved fill material including compaction.

- .5 This item includes the stockpiling of acceptable and reusable material
 - .6 This item also includes the removal of all excavated non-reusable or surplus material, from the site.
 - .7 This item will be measured on a lump sum basis.
- 1.4 Stop Work/ Outside Hours Allowance
- .1 This allowance will cover the eventuality of stop work orders, or work required to be performed outside of regular working hours as defined in section 01 10 00 General Instructions.
 - .2 This item includes only work directed to be performed at a delayed or accelerated schedule within a specified period at the direction of the NCC Representative.
 - .3 The contractor shall submit an itemized breakdown of costs for approval by the NCC representative prior to payment under this item

2.0 Landscape

2.1 Granite: P1 Stones

- .1 This item consists of the supply and installation of 100mm thick granite paving stones cut to the profiles and geometries shown on the drawings.
- .2 This item includes a 25mm sand laying bed, and polymeric sand jointing material.
- .3 This item includes field cutting of the typical stone modules as required to achieve the layout pattern as shown and all labour under the supervision of a qualified mason.
- .4 This item includes all shop drawings confirming modules, sizes and finishes.
- .5 This item will be measured and paid for on a square meter basis installed.

2.2 Granite: P2 Stones

- .1 This item consists of the supply and installation of 100mm thick granite paving stones cut to the profiles and geometries shown on the drawings.
- .2 This item includes a 25mm sand laying bed, and polymeric sand jointing material.
- .3 This item includes field cutting of the typical stone modules as required to achieve the layout pattern as shown and all labour under the supervision of a qualified mason.
- .4 This item includes all shop drawings confirming modules, sizes and finishes.
- .5 This item will be measured and paid for on a square meter basis installed.

2.3 Granite: P3 Stones

- .1 This item consists of the supply and installation of 100mm thick granite paving stones cut to the profiles and geometries shown on the drawings.
- .2 This item includes a 25mm sand t laying bed, and polymeric sand jointing material.
- .3 This item includes field cutting of the typical stone modules as required to achieve the layout pattern as shown and all labour under the supervision of a qualified mason.
- .4 This item includes all shop drawings confirming modules, sizes and finishes.
- .5 This item will be measured and paid for on a square meter basis installed.

2.4 Granite: P4 Stones

- .1 This item consists of the supply and installation of 100mm thick granite paving stones cut to the profiles and geometries shown on the drawings.
- .2 This item includes a 25mm sand laying bed, and polymeric sand jointing material.
- .3 This item includes field cutting of the typical stone modules as required to achieve the layout pattern as shown and all labour under the supervision of a qualified mason.
- .4 This item includes all shop drawings confirming modules, sizes and finishes.
- .5 This item will be measured and paid for on a square meter basis installed.

2.5 Granite: B1 Border Stones

- .1 This item consists of the supply and installation of 200mm thick granite paving stones cut to the profiles and geometries shown on the drawings.

- .2 This item includes a 25mm sand laying bed, and polymeric sand jointing material.
 - .3 This item includes field cutting of the typical stone modules as required to achieve the layout pattern as shown and all labour under the supervision of a qualified mason.
 - .4 This item includes all shop drawings confirming modules, sizes and finishes.
 - .5 This item will be measured and paid for on a square meter basis installed.
- 2.6 Granite: B2 Border Stones
- .1 This item consists of the supply and installation of 200mm thick granite paving stones cut to the profiles and geometries shown on the drawings.
 - .2 This item includes a 25mm sand laying bed, and polymeric sand jointing material.
 - .3 This item includes field cutting of the typical stone modules as required to achieve the layout pattern as shown and all labour under the supervision of a qualified mason.
 - .4 This item includes all shop drawings confirming modules, sizes and finishes.
 - .5 This item will be measured and paid for on a square meter basis installed.
- 2.7 Granular Paving Base (ONLY IF REQUIRED)
- .1 This item consists of the installation of a granular; 'A' base course for granite paving as shown on plans.
 - .2 This item includes the supply, placement, grading and compaction of the base course material.
 - .3 This item will be measured and paid for on a per tonner basis of granular installed
- 2.8 Asp halt Paving (ONLY IF REQUIRED)
- .1 This item consists of the supply and installation of new asphalt driveway to meet and match the existing asphalt driveway (as shown on drawing).
 - .2 This item will be measured and paid for on a square meter basis of asphalt installed.
- 2.9 Planting: Topsoil and Sodding
- .1 This item consists of the supply and installation of sod on all areas disturbed during construction and around the drinking fountain as shown on the drawings.
 - .2 This item includes the supply and installation of approved topsoil to the depths required to meet and match adjacent grades
 - .3 This item will be measured on a square meter basis of sod installed.
- 2.10 Wind Sensor
- .1 This item consists of the extension (+/- 40cm) of the existing wind sensor located at the top of the existing smart pole on the north side of the fountain. The wind sensor must clear the top of the existing box lights on either side.
 - .2 This item includes all labour, materials and equipment including but not limited to; access to the top of the smart pole, access to existing wiring, extension of the existing sensor wire (including water tight junction,) testing to ensure proper function.
 - .3 This item will be measured for payment on a lump sum basis.

END OF SECTION

PART 1 - GENERAL

1.1 DEFINITIONS

- .1 Where ever the term "NCC Representative " appears throughout this specification, it shall be construed to mean an Inspector representing the National Capital Commission and including a duly name consultant on their behalf.
- .2 Where ever the terms "or equal", "or approved equivalent" appear after specific types of materials and items throughout this specification, they shall be construed to mean as being equal in the opinion of the NCC Representative, in material content, workmanship and quality to that designated as being the minimum acceptable standard, and that the NCC Contractor's written approval must be obtained prior to submitting an alternative, **3 days before close of tender.**

1.2 TIME OF COMPLETION

- .1 **Phase one (South Pathway) of this contract** must commence October 9, 2017, and have achieved substantial completion by October 31, 2017.
Phase two (North Drive) of this contract will start in the spring of 2018. Exact date to be determined.
- .2 Work to be performed **during regular day time hours between 7:00 – 18:00 hours.** Work hours between 18:00 to 22:00 hours, and on Saturdays, Sundays and statutory holidays will be considered upon request at no additional cost to the NCC. The work schedule must adhere to the parameters outlined in section 1.7 Construction schedule unless otherwise indicated by NCC Representative.
- .3 Refer to Pay item description 1.4 Construction Schedule for periods when work will be prohibited / restricted.
- .4 The contractor is advised that the work site is located on NCC grounds, Ottawa in the province of Ontario. Contractor must coordinate the use of site and work scheduling with government related activities and demands. Works likely to cause a disturbance must be scheduled and approved in advance by the NCC Representative. Works likely to be considered a disturbance are created by vibrations, impacts, noise, dust, fumes, road closures, or unsightly conditions; perceptible to the building's occupants. Disturbances may entail stop work orders issued to the contractor as elaborated in paragraph 1.12.
- .5 The contractor is advised that there will be various construction sites running during this contract. Coordination will be required around deliveries and construction traffic in general, associated traffic control measures are required and part of this contract.

1.3 SCOPE OF WORK

- .1 **The contractor must take extreme care working within this site to minimize damage and disruption. The NCC Representative is to be consulted prior to any site disturbance to ensure that government functions are not negatively impacted. The Contractor will be limited to the footprint of the work area, and to the staging areas as defined in the contract documents.**
- .2 Works under this contract cover the supply of all materials, labour, equipment and services required to perform the works described in the tender package for the present contract. This includes but is not limited to:
 - .1 Protection Measures for the adjacent areas including heritage elements and trees;
 - .2 Temporary Facilities, hoarding fencing, and traffic control temporary access to building as required to complete the work;
 - .3 Selective demolition, removal and disposal / salvage of existing materials and surfaces;
 - .4 Grading and compaction
 - .5 Granite paving and curbing installed mechanically.
 - .6 Asphalt removal and disposal
 - .7 Removals and partial salvage of existing granular materials.
- .8 Site reinstatements

3. Site Supervisor: Provide competent site supervisor (minimum 10 years of experience), capable of managing the site operations of this Contract on a full-time basis during the duration of the implementation of the work of this Contract at the site.
- .4 Site Safety Officer: Appoint a Site Safety Officer responsible for health and site safety for activities and duration of the implementation of the work of this Contract.

1.4 SECURITY CLEARANCE

- .1 In accordance with the Security Policy of the Government of Canada, all persons undertaking work or services at the property covered by this contract shall be required to meet the requirements of a Site Access Security Check. The Site Access Security Assessment requires disclosure of information concerning:
 - .1 financial information (credit check),
 - .2 education,
 - .3 employment history,
 - .4 personal history and relatives, and
 - .5 criminal record (if any) for which a pardon has not been granted. (Fingerprint impressions may be necessary).
- .2 The NCC reserves the right to refuse access to personnel not passing a Site Access Reliability Check.
- .3 Unless otherwise indicated, access to the site (employees, deliveries, visitors and pick-ups of materials, etc.) must be coordinated with and approved by NCC Representative.
- .4 Reasonable care must be exercised to ensure the security of any material prepared or received in handling this project. No part of this project may be discussed, published, or displayed without the written permission of the NCC.

1.5 SECURITY AND CONFIDENTIALITY

- .1 Exercise utmost care to ensure the security of any material prepared or received in handling this project.
- .2 Without the prior written permission of the NCC Representative, do not distribute, publish, display or reproduce any documents, photographs, site plans, maps or information related to the project (or collected during the project), in any medium, including the internet.
- .3 Without the prior written permission of the NCC Representative, do not disclose any documents, photographs, site plans, maps or information related to the project unless such disclosure:
 - .1 Is reasonably required to obtain necessary permits and approvals to perform the work;
 - .2 Is reasonably required to facilitate the contracting and performance of sub-contractors, consultants and other parties involved in completing the contracted work;
 - .3 Is required by law.
- .4 When requested by the NCC, return to the NCC all copies of all site photographs and construction documents, site plans and maps related to the project.
- .5 All the above restrictions apply to all sub-contracts for work and services related to the project.

1.6 RELICS AND ANTIQUITIES

- .1 Protect relics and antiquities, items of historical or scientific interest and similar objects found during the course of work.
- .2 Immediately notify NCC Representative of any findings and await NCC Representative's written instructions before proceeding with work adjacent to findings.
- .3 If any vestiges of early human occupancy of the land are uncovered during construction, suspend construction activity and notify the NCC Representative.
- .4 Relics, antiquities and items of historical or scientific interest shall remain the property of the Crown.

1.7 CONSTRUCTION SCHEDULE

- .1 Construction schedule will be determined by the Contractor and the NCC Contract Administrator and must respect the following parameters.
- .2 A schedule prescribing the activities and associated timeframes acceptable to complete this work will be provided to the successful bidder. This will be update at weekly Monday morning site meetings.
- .3 Contractor to prioritize work during week days when possible.
- .4 Unforeseen events may occur, in which case a stop work order or an order to work outside regular hours will be issued as per section 1.12 (Stop Work Order)
- .5 The Contractor must submit an acceptable work schedule within 5 days of the award of contract.
 - .1 The accepted work schedule shall become the baseline for on-going discussion at regular site meetings, where measures to regain control of activities that are falling behind schedule shall be agreed upon.
 - .2 The contractor will be deemed to be in breach of contract if an acceptable work schedule is not provided within the specified 5 day period.

1.8 PRE-CONTRACT AWARD CONDITIONS

- .1 Bidders must demonstrate the aptitude and experience required and meet all qualification requirements stipulated for this scope of work at the time of submitting their bid. Refer to the General Conditions for the submission criteria.
- .2 Prior to the award of contract, the contractor must submit:
 - .1 **A site specific health and safety plan,**
 - .2 **Corporate health and safety policy,** and all other documents required by the letter of notification (Performance & Labour & Material bonds, insurance certificate, WSIB certificate) within 10 days of receiving the letter of notification.If the requested documentation is not received within 10 business days of receiving the letter of notification, the NCC reserves the right to proceed on to the next lowest compliant bidder.
- .3 Prior to the award of contract, the Contractor must submit:
 - .1 **Traffic Management Plan for Construction Safety,** deemed acceptable by the NCC Representative, within 10 business days of receiving the letter of notification.
 - .2 The Contractor will be considered to be in default of contract if the accepted Traffic Management Plan for Construction Safety is not being executed as approved and/or the work methods being used are determined by the NCC Representative to be causing unnecessary or irreparable damage to the project site.
 - .3 If acceptable plans are not received within 10 business days, the NCC reserves the right to proceed on to the next lowest compliant bidder.

- .4 Prior to the award of contract, the Contractor must submit:
 - .1 **Work Methodology Plan**, deemed acceptable by the NCC Representative, within **5 business days** of receiving the letter of notification.
 - .2 The Work Methodology Plan must clearly outline the primary construction challenges to be overcome for this specific project and the approach that will be taken to execute the work, including but not limited to: sequencing of work and strategy to meet timeline, staging, mitigation and protection measures, delivery scheduling and frequencies, material lead times, site specific training and **quality control measures**.
 - .3 The plan should take the form of a drawing and/or written manual and along with the construction schedule it will serve as the baseline for the planning of the construction works.
 - .4 If acceptable plans are not received within 5 business days, the NCC reserves the right to proceed on to the next lowest compliant bidder.
 - .5 The Contractor will be considered to be in default of contract if the accepted Work methodology Plan is not being executed as approved and/or the work methods being used are determined by the NCC Representative to be causing unnecessary or irreparable damage to the project site.
 - .6 Consult sections 1.9, 1.10, 1.11, 1.20 below for more details.

1.9 SITE ACCESS

- .1 Job showing is optional. Contact NCC security for additional site information and details. NCC Security | Sécurité CCN at SecurityScreening@ncc-ccn.ca. Phone 613 239 5222.
- .2 Primary access to the construction site for all personnel, equipment and materials will be via the designated security gate.
- .3 Traffic route to construction site passes through a public zone. Public health and safety is critical. Identify necessary mitigation procedures and protocols as part of **Work Methodology Plan**.
- .4 The entrance to the site will be restricted to a single 4.9m lane.
- .5 Secondary entrances with restricted use are located on site. Contractor must obtain written permissions from the NCC Representative prior to the use of this entrance.

1.10 PUBLIC USE OF SITE

- .1 The grounds are a designated National Historic Site of Canada. It is one of the most prestigious sites in the Capital, with more than 250,000 visitors per year.
- .2 The surrounding grounds will be open to the public during the day throughout the construction period.
- .3 The entrance will remain in operation as a service and public entrance throughout the contract. The contractor is responsible for maintaining continuous universally accessible access as shown on the contract drawings. Coordinate works in this area to limit disturbances to the building's operation and identify mitigation measures in the **Work Methodology Plan**.

1.11 CODE OF CONDUCT

- .1 The work site will be visible to the public at all times. The behaviour of the construction crew will be under constant vigilance and a strict code of conduct will be enforced.
- .2 The contractor is responsible for appropriate training and enforcement of code of conduct for all personnel working on site. Identify the measure for training and enforcing the code of conduct as part of the approved **Work Methodology Plan**.
- .3 Construction personnel are expected to conduct themselves in a professional manner. The code allows zero tolerance for the following by any of the contractor's personnel or sub-contractors:
 - .1 profane or abusive language of any kind in any language;
 - .2 clothing with inappropriate wording or graphics;
 - .3 smoking;
 - .4 shouting, fighting, & horseplay;
 - .5 heckling, whistling or fraternization towards staff or public.

1.12 STOP WORK ORDER

- .1 A stop work order may be issued at any point during the contract. Stop work orders will be initiated by the NCC Representative and will take the form of a written order.
- .2 Stop work orders may include the directive to halt work for a specified period of time, or to complete specific types of work during off hours, weekends, or statutory holidays.
- .3 A cash allowance for stop work orders is included in the unit price table reflecting a value of 250 hours where one (1) hour equals one person.

1.13 CODES, PERMITS AND STANDARDS

- .1 Standards referred to in this specification (CGSB, CSA, ASTM, OPSD, CHBDC etc.) may be examined at the following location:

Public Works and Government Services Canada
Standards and Specifications Branch
Place du Portage – Phase 3, 11 Laurier Street, Gatineau, Quebec
K1A 0S5
- .2 Perform work in accordance with the National Building Code of Canada (NBC) 2010 and any other code or provincial or local application provided that in any case of conflict or discrepancy, the more stringent requirements shall apply.
- .3 Execute work to satisfy all requirements as indicated in:
 - .1 Contractual documents
 - .2 Standards and codes specified as well as those cited in reference.
- .4 Obtain and pay for permits, inspector's approvals, and other licenses required for this project and also pay any charges incidental to such permits. Provide copy of permits to NCC Representative.

1.14 QUALITY CONTROL

- .1 It is a requirement of this contract that qualified tradesmen execute each type of work specified. Example: Landscape contractor for landscape work, Landscape Stone mason for stone paving work, etc.
- .2 Work unsatisfactorily completed by unqualified tradesmen will be redone and paid for by the contractor.
- .3 Alternatives
 - .1 The NCC Representative will only consider Alternatives
 - .1 for materials, products or processes specified with the term "and/or approved equivalent" applied and;
 - .2 submitted in accordance with the "General Instructions for Tendering".
- .4 The NCC Representative will approve alternatives that are in his opinion equal in material content, workmanship and quality to the materials, products or processes identified and at least conformant to the standards specified.

- .5 Assume the cost of additional work or modifications to the design due to the use of NCC Representative approved alternatives.

1.15 SPECIAL CONSTRUCTION REQUIREMENTS

- .1 Refer to staging areas as indicated on the drawings.
- .2 The contractor will be responsible to ensure that the equipment utilized for site preparation, excavation, removals including stripping of topsoil and rock breakage does not cause any damage or disturbance to the subgrade. The subgrade must be protected at all times during construction and in particular following moderate to heavy rainfall.
- .3 A plan of known underground infrastructure will be provided by the NCC to the winning bidder before the onset of construction. The contractor will be responsible for confirming the location of all underground infrastructure and services that will require protection for the duration of the contract.
- .4 Any damaged subgrade areas caused as a result of construction traffic or construction techniques must be repaired by the contractor as part of this contract and at no additional cost to the National Capital Commission.
- .5 Reinstatement of all areas damaged by construction activity and by equipment circulation as part of this contract to their original condition or better, to the satisfaction of the NCC Representative and at no additional cost to the NCC.
- .6 The Contractor shall be responsible as part of the tender price for stripping and reuse of topsoil and approved fill material, or the removal from the site of all excavated non-reusable or excess material as well as the supply and placement of all required imported fill material required to execute the work of this contract.
- .7 The Contractor will not be compensated for any additional stripping and/or additional earth or granular backfill materials required as a result of over-excavations not approved or authorized by the NCC Representative prior to undertaking work.

1.16 TAXES

- .1 Include in the tender amount, all sales and other taxes levied by the Federal, Provincial and Municipal government or other authority. There will be no refunds made by the National Capital Commission to the Contractor for Taxes paid by the Contractor.

1.17 PROTECTION

- .1 The Contractor shall be responsible for all damages to public services, services, property, structures, or buildings adjacent to or in the general area of work caused by earthworks, vibrations, impacts, and shocks resulting from the construction works of the present contract. The Contractor will reinstate damaged areas and all elements to the satisfaction of the NCC contract administration and at no additional cost to the NCC.
- .2 The contractor will supply and install appropriate protection measures for public services, services, property, structures, or buildings adjacent to the general area of work for the duration of construction. Associated costs to protection measures shall be included in the submission at no additional cost to the NCC.
- .3 The Contractor will supply and install protective barriers, fencing, barricades, lighting, and other required equipment for the protection of the public, the occupants and for work site safety in conformity with provincial and municipal regulations and the Canadian Code for Construction Site Safety. Associated costs for such measures will be included in the submission and at no additional cost to the NCC.
- .4 Protect all existing structures for duration of construction.
- .5 Take all necessary measures to ensure no damage to vegetated areas and specimen trees.

1.18 DAMAGES

- .1 Damages caused to existing plant material, landscaping, lawns, roadways, pathways, structures, finishes, and public utilities due to work of this contract will be restored to their original condition, replaced or adequate compensation made to affected parties by the Contractor.
- .2 It is understood that restored or replaced work includes labour, equipment, and material costs.
- .3 The restored or replaced work shall be completed within **seven days** of notification by the NCC Representative.

1.19 FIRE SAFETY

- .1 Provide fire extinguishers to protect the work in progress.
- .2 Advise NCC Representative of any work that would impede fire apparatus / personnel response.
- .3 Know the location of nearest fire alarm box and telephone, including the emergency phone number.
- .4 Observe at all times smoking regulations. There is no smoking in or near the Work. The NCC Representative will designate a smoking area.

1.20 CUTTING FITTING AND PATCHING

- .1 The aesthetic quality of existing surfaces and structures to remain at the end of contract is of utmost importance. Contractor should identify in the approved **Work Methodology Plan** which surfaces and structures will be retained and the protection and mitigation measures to be employed for their modifications and adjustment to match new works.
- .2 Execute cutting, fitting and patching of work that may be a requirement to make work fit properly together, to receive or be receive by other work.
- .3 Where new work connects with existing and where existing work is altered, cut, patch and make good to match existing work.
- .4 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.

1.21 SITE VISIT

- .1 A site visit will be organized during the tender period.
- .2 It is the contractor's responsibility to visit the site and familiarize themselves with the existing site conditions prior to the tender close.
- .3 The submission of a tender shall be deemed as proof that the tenderer and his sub-trades are aware of existing site and the scope of work associated with this contract. After claims for additional compensation will not be entertained for any items of labour, equipment or materials required to complete the work that could have been reasonably ascertained by a site examination.

1.22 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each of following in conformity to the standards of Document Safeguarding Capability (DOS) and other stipulated security requirements:
 - .1 Contract Drawings;
 - .2 Specifications;
 - .3 Addenda;
 - .4 Change orders;
 - .5 Other modifications to Contract;
 - .6 Field test reports;
 - .7 Manufacturer's installation and application instructions;
 - .8 Copy of current and approved work schedule;
 - .9 Health and Safety Plan approved by NCC Representative;
 - .10 Work Methodology Plan approved by NCC Representative;
 - .11 Traffic Control plan approved by NCC Representative

1.23 WORK SCHEDULE

- .1 Provide within 10 working days after contract award, in form acceptable to NCC Representative, a detailed schedule showing anticipated progress stages and final completion of work within time period specified in Contract Documents.
- .2 Interim reviews for work progress based on work schedule will be conducted as decided by NCC Representative and schedule updates by the Contractor in conjunction with and to approval of the NCC Representative.

1.24 CONTRACTOR'S USE OF SITE

- .1 Limited to area immediately surrounding work and areas designated by the NCC Representative for material stockpiling and parking of work equipment.
- .2 On-site parking is severally limited. Only critical vehicles and equipment will be permitted to park on the site at the written approval by the NCC Representative.
- .3 Do not unreasonably encumber site with materials or equipment during construction.
- .4 Where safety or security is reduced by work, provide temporary means to maintain safety and security of area at all times.
- .5 If required for the execution of works find supplemental staging and parking areas outside of the site, all associated costs and permissions will be assumed by the contractor.
- .6 In the event that safety or security measures must be modified as a result of a contract modification assure that site safety and security measures are maintained.
- .7 Contractor Facilities: Contractor shall make provision for an administrative and lunch area with adequate lighting, heat, and ventilation for use by the Contractor and sub-contractors workforce.
- .8 Storage: NCC Representative will establish on-site areas for storage of material.
- .9 Waste bin shall be permitted in area designated and pre-approved by NCC Representative and shall be planned for minimal duration. Waste containers for potential designated substances shall be in accordance to applicable regulations.
- .10 Materials and equipment shall not be permitted to encumber any area outside of the designated work site area unless pre-authorized by NCC Representative.
- .11 Execute work with least possible interference or disturbance to the normal use of the building's operations. Confine the Work and operations of employees to limits indicated by Contract Documents and as directed by the NCC Representative. Make arrangements with NCC Representative to facilitate work as stated.
- .12 Ventilation
 - .1 Provide ventilation to prevent accumulation of dust, fumes, mists, vapours, or gases in areas of Work.
 - .2 Provide ventilation through portable fan(s) exhausted to the out of doors to prevent migration of dust and debris within the building.
 - .3 Dispose of exhaust materials in manner that does not contaminate adjacent areas.
 - .4 Continue operation of ventilation and exhaust systems for sufficient time after cessation of operations to ensure removal of pollutants.
- .13 Temporary Heating (if required)
 - .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
 - .2 Building electrical supply may be used. Ensure capacity is adequate prior to imposing loads. Connect, use and disconnect at own expense and responsibility. Coordinate with NCC Representative. Owner will pay for Electrical Utility usage costs except for temporary electricity generator(s) that shall be provided by Contractor where required for the work.
- .14 Deliveries to the site shall be within pre-arranged and authorized time frames by NCC Representative and site security with a minimum 24 hours' notice.
- .15 Waste Disposal: unloading and disposing of waste is only allowed after working hours: before 7:00am and after 6:00pm.
- .16 The use of a boom trucks or lifts is only allowed after working hours: before 7:00am and after 6:00pm.

- .17 Smoking is prohibited within 50 feet of buildings. A smoking area will be identified by the NCC Representative. The contractor is responsible for ensuring cigarette butts are removed from site.

1.25 SETTING OUT OF WORK

- .1 Contractor must obtain NCC Representative's approval of limits of work prior to commencing work.
- .2 Surface elevations to match existing conditions prior to removal of stone for Phase one and Asphalt for phase two.

1.26 PROJECT MEETINGS

- .1 NCC Representative will arrange project meetings and assume responsibility for setting times and recording and distributing minutes.

1.27 EXISTING SERVICES

- .1 Before commencing work, establish location and extent of underground service lines in area of work and notify NCC Representative of findings.
- .2 Where unknown services are encountered, immediately advise NCC Representative and confirm findings in writing.
- .3 Where work involves adjusting of existing services:
 - .1 Execute work at times directed by NCC Representative,
 - .2 Submit schedule to and obtain approval from NCC Representative for any shutdown or closure of active services,
 - .3 Notify NCC Representative at least 14 days before service disruption,
 - .4 Adhere to approved schedule.
- .5 Make good and pay for damage to existing service lines resulting from work.

1.28 TRAFFIC CONTROL

- .1 Under no circumstances should the contractor infringe upon the main entrance.
- .2 Do not infringe on adjacent roads, walkways or parking areas or interfere with normal vehicular circulation in carrying out the work. If it is necessary to occupy thoroughfares for purposes of unloading materials, etc., obtain permission from the NCC Representative by writing **fifteen days** before hand. Contractor to abide by their instructions regarding the manner, time and delays necessary to carry out these operations. Incidental costs for conforming to these requirements will be paid by the Contractor.
- .3 Carry out protection in accordance with the requirements of the Provincial and Local-by-laws having jurisdiction over this type of work.
- .4 All signs must be provided in English and French. Use pictograms where possible.
- .5 Install signage where it is necessary to advise of road and pathway closures.

1.29 ADDENDA

- .1 Answers to questions directed to the NCC Representative, and any amendments to the drawings and specifications during the tender period will be communicated in the form of addenda to all general contractors tendering; such addenda to be considered as and read as part of the specifications and thereby included in the contract documents.

1.30 ADDITIONAL DRAWINGS

- .1 The National Capital Commission may furnish additional drawings to the contractor to assist in the proper execution of the work. These additional drawings will be issued for clarification purposes only. Such drawings shall have the same meaning and intent as if they were included in the tender package.

1.31 CONTRACT DOCUMENTS

- .1 Drawings and specifications are complementary. Items shown on plans or mentioned in one and not in the other are deemed to be included in the contract work.
- .2 If the drawings and specifications differ, the NCC Representative shall give preference to the Contract document thereof, which best insures the attainment of this contract's objectives.

1.32 PAYMENT

- .1 This is a unit price contract. Any minor or miscellaneous items indicated on the drawings as being part of the work of this contract must be included by the Contractor in his overhead and indirect charges and incorporated into the unit price bid.
- .2 No separate payment will be made for work performed in respect to any of the special provisions where there is no specific pay item on the schedule of prices. The cost of these works must be appropriated among, and included in the lump sum bid.

1.33 ADVERTISING & SIGNAGE

- .1 No advertising will be permitted on this project.
- .2 No promotion signage will be permitted.
- .3 No signage representing supply and installations companies and/or contractors and consultants shall be permitted.

1.34 CO-OPERATION WITH OTHERS and PUBLIC RELATIONS

- .1 At all times during the design and construction activities of the work of this contract, the Contractor shall permit and facilitate access to the work site to NCC construction services and to NCC contracted consultants for design and implementation phases of this work.
- .2 The Contractor may be in contact with users/visitors on site. If interacting with users/visitors to the site, the Contractor shall, at all times, be courteous, helpful and respectful to the users/visitors.
- .3 Behaviour, demeanor and conduct at the work site shall be in good practices. Profane language from the Contractor's workforce is not acceptable at the work site.
- .4 The Contractor shall at all times during work of this contract, respect traffic regulations of the site.
- .5 Co-operate with site operations and maintenance staff and services at all times.
- .6 Co-operate with Other Contractors retained for site operations and maintenance services.

1.35 COMPACTION OF MATERIALS

- .1 The thickness of granular and crushed stone materials shown on the drawings shall be the real thickness after the materials have been compacted as specified.
- .2 Compaction tests for granular will be supervised by the NCC Representative.
- .3 Contractor to assume all costs for compaction tests and for material testing.

1.36 TEMPORARY INSTALLATIONS

- .1 Contractor to assume all costs associated with temporary installations such as site trailers, portable washrooms, site fencing, jersey barriers, signage, construction lighting as required to complete the works as prescribed in the tender package and until the date of final completion.
- .2 Any temporary services such as water, electrical, fuel and sanitary facilities must be self-contained and all costs for installation and removal at the end of contract are the responsibility of the contractor.

1.37 RECORD DRAWINGS

- .1 As work progresses, maintain accurate records to show deviations from contract documents.
- .2 Just prior to NCC Representative's inspection for issuance of final certificate of completion, supply one set of white prints with all major and minor deviations neatly inked in. The NCC Representative will provide two sets of clean white prints for this purpose.

1.38 GUARANTEES AND WARRANTIES

- .1 Before completion of work, collect all manufacturer's guarantees and warranties, and deposit to NCC Representative.

END OF SECTION

PART 1 - GENERAL

1.1 Submit to NCC Representative for review, shop drawings, product data and samples specified.

1.2 Until submission is reviewed, work involving relevant product may not proceed.

1.3 References

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-[94], Stipulated Price Contract.

1.4 Shop Drawings

- .1 Drawings to be originals supplied by contractor, subcontractor, supplier or distributor, illustrating appropriate portion of work:
 - .1 Showing fabrication, layout, setting or erection details as specified in appropriate sections.
 - .2 Identify details by reference to sheet or detail number shown on contract documents.
 - .3 Maximum sheet size 610 x 915 mm.
 - .4 Reproductions for submissions opaque diazo prints.

1.5 Shop drawings review

The review of shop drawings by the NCC Contract Administrator is for the sole purpose of ascertaining conformance with the general concept. This review shall not mean that the NCC Contract Administrator approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the construction and contract documents. Without restricting the generality of the foregoing, the Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

1.6 Product Data

- .1 Manufacturer's standard schematic drawings, catalogue sheets, diagrams schedules, performance charts, illustrations and other standard descriptive data may be accepted in lieu of shop drawings.
- .2 Above will only be accepted if they conform to following:
 - .1 Delete information not applicable to project;
 - .2 Supplement standard information to provide additional information applicable to project;
 - .3 Show dimensions and clearances required;
 - .4 Show performances characteristics and capacities.

1.7 Samples and Mock-ups

- .1 Submit samples in sizes and quantities specified.
- .2 Where colour, pattern or texture is criterion, submit full range of samples.
- .3 Reviewed samples will become standards of workmanship and material against which installed work will be checked on project.

1.8 Co-ordination of Submissions

- .1 Review shop drawings, product data and samples prior to submission.
- .2 Verify:
 - .1 Field measurements;
 - .2 Field construction;
 - .3 Catalogue numbers and similar data.
 - .4 Co-ordinate each submission with requirements of work and contract documents.
 - .5 Individual shop drawings will not be reviewed until all related drawings are available.
 - .6 Contractor's responsibility for errors and omissions in submission is not relieved by NCC Representative's review of submittals.
 - .7 Contractor's responsibility for deviations in submission from requirements of Contract documents is not relieved by NCC Representative's review of submission, unless NCC Representative gives written acceptance of specified deviations.
 - .8 Notify NCC Representative in writing at time of submission, of deviations from requirements of Contract documents.
 - .9 After NCC Representative's review, distribute copies.

1.9 Submission Requirements

- .1 Schedule submissions at least 10 days before dates reviewed submissions will be needed.
- .2 Submit an electronic copy of shop drawings and product data requires for distribution, plus 2 paper copies to be retained by NCC Representative.
- .3 Accompany submissions with transmittal letter, in duplicate, containing:
 - .1 Date;
 - .2 Project title and number;
 - .3 Contractor's name and address;
 - .4 Number of each shop drawings, product data and sample submitted;
 - .5 Other pertinent data.

1.10 Submission shall include:

- .1 Date and revisions dates;
- .2 Project title and number;
- .3 Name of:
 - .1 Contractor;
 - .2 Subcontractor;
 - .3 Supplier;
 - .4 Manufacturer;
 - .5 Separate detailer when pertinent.
- .4 Identification of product or material;
- .5 Relation to adjacent structure or materials;
- .6 Field dimensions, clearly identified as such;
- .7 Specification Section number;
- .8 Applicable standards, such as CSA or CGSB numbers;
- .9 Contractor's stamp, initialed or signed, verifying review of sub-mission, verification of field measurements and compliance with Contract documents.

END OF SECTION

PART 1 GENERAL

1.1 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
- .2 Province of Ontario Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. [1990 as amended 213/91].

1.2 SUBMITTALS

- .1 Plan Prior to award of Contract submit a **site specific Health and Safety Plan** comprised of two parts :
 - .1 The Constructor's General Safety Plan.
 - .2 The Site Specific Safety Plan.
- .2 Submit copies of reports or directions issued by Federal and Provincial Health and safety inspectors.
- .3 Submit copies of incident and accident reports.
- .4 Submit Material Safety Data sheets (MSDS) to NCC Representative conforming to the Workplace Hazardous Materials Information System (WHMIS)

1.3 PART 01 – CONSTRUCTOR`S GENERAL SAFETY PLAN

- .1 Part 1 of the plan, the constructor`s general safety plan shall include, but not limited to the following:
 - .1 Health and Safety Policy;
 - .2 Health and Safety Program that supports the Health and Safety Policy;
 - .3 Roles and responsibilities; and
 - .4 General rules and procedures for all tasks that the Constructor performs.

1.4 PART 02 – SITE SPECIFIC SAFETY PLAN

- .1 Part 2, the Site Specific Health and Safety Plan must only contain information specific to this project and must observe and enforce all provincial, territorial and local laws, ordinances and regulation.
- .2 The plan shall include but not limited to the following:
 - .1 Description of Project (a brief overview of the project);
 - .2 Site Plan identifying emergency evacuation plan/procedures, routes, meeting areas, safety board location, site office, etc.;

- .3 Written procedures to address site specific accidents/emergencies (must incorporate existing building emergency procedures);
- .4 Emergency phone numbers list;
- .5 Health and Safety Representative/Committee/Workers Trade Committee;
- .6 Applicable permits from the authorities having jurisdiction (i.e. building, electrical, etc.)
- .7 Hazard Assessment/Analysis (Task - Hazard - Control);
- .8 Designated Substances Report (DSR), identify location and provide written procedures on how they will be addressed;
- .9 Copy of mandatory Training Certificates:
 - .1 First aid certification;
 - .2 Copy of Trade Qualifications and Apprenticeship Certificates;
 - .3 Fork lift truck certificate and other security certificates;
 - .4 All other certificates require for the project
 - .5 WHMIS, Fall Protection, First Aid, Confined Space, Cement Truck Certificate, JPO, etc.);
- .10 The obligation of the employer to provide equipment, material and protective devices and to keep them in good condition for all staff, including sub- contractor;
- .11 List of the emergency team members, according to the WHMIS regulation;
- .12 List of all Sub Contractors, Contact Names & Address;
- .13 Copy of all Sub Contractors "Competency and Health and Safety Acknowledgment Statement"
- .14 Worker orientation for this Project;
- .15 Copy of all applicable contractor licenses, including, but not limited to the following:
 - .1 Notice of Project
 - .2 Registration Form
 - .3 Liability Insurance
 - .4 WSIB Clearance Certificates from all companies
 - .5 Job Protection Office (JPO) registration
 - .6 Hot work procedures
- .16 Controlled products, WHMIS/MSDS
- .17 Communications plan;

- .18 Emergency plan taking into consideration all potential problems or situations which could arise for the duration of the project.

1.5 GENERAL REQUIREMENTS

- .1 Submit a Site Specific Health and Safety Plan within seven (7) days of receiving the letter of notification.
- .2 NCC Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.
- .3 If the requested documentation is not received within 7 business days of receiving the letter of notification, the NCC reserves the right to proceed on to the next lowest compliant bidder.
- .4 Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

1.6 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Assume responsibility for health and safety of all other contractors present on site under the prescriptions of the present section
- .3 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.7 COMPLIANCE REQUIREMENTS

- .1 Comply with Ontario Health and Safety Act and Regulations for Construction Projects.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

1.8 UNFORESEEN HAZARDS

- .1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of the Province of Ontario having jurisdiction. Advise NCC Representative verbally and in writing.

1.9 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province of Ontario having jurisdiction, and in consultation with NCC Representative.

1.10 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by NCC Representative.
- .2 Provide NCC Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 NCC Representative may stop Work if non-compliance of health and safety regulations is not corrected.

1.11 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

1.12 PERSONNEL HEALTH, SAFETY, AND HYGIENE

- .1 Training: Ensure personnel entering site are trained in accordance with specified personnel training requirements.
- .2 Personal Protective Equipment:
 - .1 PPE and protective clothing must be kept clean and well maintained.

1.13 EXCAVATING

- .1 The Contractor shall ensure no person enters an excavation unless another worker is working above ground close to the excavation or to the means of access to it.
- .2 The Contractor shall arrange the locating and marking of gas, electrical and other services prior to commencing an excavation.
- .3 The Contractor shall obtain approval from Consultant before arranging the shut off and disconnection of a service that may pose a hazard.
- .4 The Contractor shall comply with the requirements of Section 230 to 242, O. Reg. 213/91, OHS.A.

1.14 CHEMICALS

- .1 The Contractor must provide a list of all chemicals to be used on site and a copy of the Material Safety Data Sheet (MSDS) for each chemical to the Consultant prior to being brought onto the job site.
- .2 The Contractor must ensure each chemical container brought on site is clearly labelled with the identity of the chemical, information for the safe handling of the chemical and the location of the MSDS.

- .3 The Contractor must ensure adequate measures are taken to control the distribution, within the application area or throughout the building, of fumes/vapours before applying flammable, noxious or volatile materials.
- .4 The Contractor may be required to schedule the application of hazardous materials which might affect the well-being of any workers or disrupt work of other Contractors and cannot be adequately controlled to prevent such occurrences to evening or weekend periods.
- .5 The Contractor must ensure workers wear the required personal protective equipment (respiratory protection, protective clothing, hand protection, eye/face protection, etc.) when working with chemicals.
- .6 The Contractor must ensure the safe use and disposal of all chemicals that they are using. No chemicals and/or chemical waste product shall be disposed of on site without prior approval of Consultant.
- .7 The Contractor may not store chemicals and compressed gas cylinders on site without approval of the Consultant. If approved, the Contractor must ensure incompatible chemicals are stored separately.

1.15 BLASTING

- .1 Blasting of any other use of explosives is not allowed.

1.16 NOISE

- .1 Contractor shall include in its agenda all noisy work and indicate them clearly in his work schedule.
- .2 Noisy work shall only be executed according to the General Requirements Specification.
- .3 The NCC Representative may stop at any time the work too noisy and ask to contractor to postpone a subsequent phase.

1.17 STOP WORK

- .1 Prioritize the health and safety of the public and site personnel, and the protection of the environment, on issues related to the cost and the schedule of work.

PART 2 PRODUCT

2.1 NA

PART 3 EXECUTION

3.1 NA

END OF SECTION

PART 1 GENERAL

1.1 RELATED SECTIONS

- .1 Waste Management: Section 01 74 19
- .2 Excavation and Backfilling : Section 31 23 10
- .3 Tree and Shrub Preservation : Section 32 01 90

1.2 DEFINITION

- .1 Pollution and damage to the environment: presence of elements or chemical, physical or biological agents which have a detrimental effect on the health and well-being of people, which alter the ecological balance important for humans and which constitute an infringement of the species playing an important role in the latter or degrading characters aesthetic, cultural or historical environment
- .2 Environmental protection: prevention/control of pollution and disturbance to habitat and the environment during construction. The prevention of pollution and damage to the environment covers the protection of soil, water, air, biological and cultural resources; It also includes the management of Visual aesthetics, noise, solids, chemical, gaseous and liquid waste of radiant energy, radioactive materials and other pollutants.

1.3 SUBMITTALS

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Prior to commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by NCC Contract Administrator. Environmental Protection Plan is to present comprehensive overview of known or potential environmental issues which must be addressed during construction.
- .3 Address topics at level of detail commensurate with environmental issue and required construction task[s].
- .4 Environmental protection plan: to include:
 - .1 Name[s] of person[s] responsible for ensuring adherence to Environmental Protection Plan.
 - .2 Name[s] and qualifications of person[s] responsible for manifesting hazardous waste to be removed from site.
 - .3 Name[s] and qualifications of person[s] responsible for training site personnel.

- .4 Descriptions of environmental protection personnel training program.
- .5 Erosion and sediment control plan which identifies type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.
- .6 Drawings showing locations of proposed temporary excavations or enclosures for material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site.
- .7 Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plans include measures to minimize amount of mud transported onto paved public roads by vehicles or runoff.
- .8 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Plan to include measures for marking limits of use areas including methods for protection of features to be preserved within authorized work areas.
- .9 Spill Control Plan: including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
- .10 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
- .11 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, do not become air borne and travel off project site.
- .12 Contaminant prevention plan that: identifies potentially hazardous substances to be used on job site; identifies intended actions to prevent introduction of such materials into air, water, or ground; and details provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
- .13 Waste water management plan that identifies methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.
- .14 Historical, archaeological, cultural resources plan that defines procedures for identifying and protecting historical, archaeological and cultural resources.

1.4 FIRE

- .1 Fires and burning of rubbish on site is not permitted.

1.5 DIPOSAL OF WASTE

- .1 Burying of rubbish and waste materials on site is not permitted.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.
- .3 Waste materials to be as per Section 01 61 10 - Management and Disposal of Excess Material.

1.6 DRAINAGE

- .1 Provide a plan of measures against erosion and sediment transport, indicating the means that will be implemented, including monitoring of the work and the production of reports, to ensure that these measures are consistent with the laws and federal, provincial and municipal regulations.
- .2 A storm water pollution prevention plan can replace the plan of measures against erosion and sediment transport.
- .3 Ensure the drainage and pumping temporary, needed to keep the excavations and the site dry.
- .4 It is forbidden to pump water containing suspended solids to a watercourse, a sewer or drain or drainage system.
- .5 Ensure the evacuation or the elimination of wastewater containing substances in suspension or harmful substances in accordance with the requirements of local authorities.
- .6 Control and exhaust particulate-laden waters pending or containing any other hazardous material according to the requirements of the responsible authorities. Cover from storage piles of contaminated and uncontaminated land with a tarp to prevent runoff from entering the sewer system or waterways.

1.7 SITE CLEARING AND PLANT PROTECTION

- .1 Minimize stripping of soil during sod removal.

1.8 POLLUTION CONTROL

- .1 Maintain temporary erosion and pollution control features installed under this contract.

- .2 Control emissions from equipment and plant to local authorities emission requirements.
- .3 Build temporary shelters to prevent sanding materials and other foreign materials contaminate air and waterways beyond the area of application.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

1.9 PRESERVATION OF HISTORICAL / ARCHAEOLOGICAL CHARACTER

- .1 The excavation work related to the installation of the granite project will be monitored for archaeological resources by the NCC professional archaeologist.
- .2 The archaeologist conducting monitoring is authorized to halt excavation work temporarily, in order to record archaeological features and to collect archaeological artifacts the may be exposed by the work.
- .3 Contractor to advise the NCC Representative ten (10) day prior to beginning of excavation
- .4 The contractor shall provide for the protection of historical, archaeological, cultural and biological resources known or discovered during the duration of the work.
- .5 If the protection of these resources is not appropriate, the NCC Representative will order stop work until satisfactory corrective measures are taken.
- .6 No additional time, no fees or no adjustment will be awarded for the work stoppage.

1.10 REVIEW AGENCIES

- .1 Various concerned Government agencies may be on site during construction and the Contract or shall provide access and meet the requirements of easy those agencies without delay.

PARTIE 2 PARTIE 2 – PRODUCTS

2.1 NA

PARTIE 3 PARTIE 3 – EXECUTION

3.1 NA

END OF SECTION

PART 1 - GENERAL

1.1 Section Includes

- .1 Construction aids.
- .2 Office and sheds.
- .3 Parking.
- .4 Project identification.

1.2 Related Sections

- .1 Section 01 56 00 - Temporary Barriers and Enclosures.

1.3 References

- .1 Canadian Standards Association (CSA International)
 - .1 CAN3-A23.1-/A23.2-94, Concrete Materials and Methods for Concrete Construction/Method of Test for Concrete.
 - .2 CSA-0121-M1978, Douglas Fir Plywood.
 - .3 CAN/CSA-Z321-96, Signs and Symbols for the Occupational Environment.

1.4 Installation and Removal

- .1 Provide construction facilities in order to execute work expeditiously.
- .2 Remove from site all such work after use.

1.5 Site Storage/Loading

- .1 Refer to CCDC 2, GC 3.12.
- .2 Confine work and operations of employees to the limits of work by Contract Documents except for access to the Work sites. Do not unreasonably encumber premises with products.
- .3 Do not load or permit to load any part of Work with a weight or force that will endanger the Work.

1.6 Construction Parking

- .1 Parking will be permitted on site within the limits of construction in accordance with the approved construction staging and traffic control plan provided in accordance with Section 10 35 30 Traffic Control, and it does not disrupt performance of Work.
- .2 Provide and maintain adequate access to project site.
- .3 If authorized to use existing roads for access to project site, maintain such roads for duration of Contract and make good damage resulting from Contractors' use of roads.

1.7 Security

- .1 Provide and pay for responsible security personnel to guard site and contents of site after working hours and during holidays.

1.8 Equipment, Tool and Materials Storage

- .1 Provide and maintain, in a clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in a manner to cause least interference with work activities.

1.9 Sanitary Facilities

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.10 Construction Signage

- .1 Signs and notices for safety and instruction shall be in both official languages Graphic symbols shall conform to CAN3-Z321.
- .2 Maintain approved signs and notices in good condition for duration of project, and dispose of off-site on completion of project or earlier if directed by the NCC Representative.

END OF SECTION

PART 1 - GENERAL

1.1 Section Includes

- .1 Barriers
- .2 Environmental Controls
- .3 Traffic Controls
- .4 Fire Routes

1.2 Related Sections

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 52 00 – Construction Facilities
- .3 Section 01 74 19 – Waste Management
- .4 Section 32 01 91 – Tree Preservation

1.3 References

- .1 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB 1.189-[00], Exterior Alkyd Primer for Wood.
 - .2 CGSB 1.59-[97], Alkyd Exterior Gloss Enamel.
- .2 Canadian Standards Association (CSA International)
 - .1 CSA-O121-[M1978 (R2003)], Douglas Fir Plywood.
- .3 Public Works and Government Services Canada (PWGSC) Standard Acquisition Clauses and Conditions (SACC)-ID: R0202D, Title: General Conditions 'C', In Effect as Of: May 14, 2004.

1.4 Installation and Removal

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.5 Hoarding

- .1 Erect temporary modular construction fencing to secure the Work Area and any hoarding areas outside of the Work Area in accordance with the drawings and to the approval of the NCC Representative. Fencing shall be securely anchored to the ground.
- .2 Provide minimum one (1) lockable gate and at least one pedestrian door as directed and conforming to applicable traffic restrictions on adjacent streets. Equip gates with locks and keys.
- .3 Fabricate and install weather resistant signage on the public side of the construction fence surrounding limit of the work area to inform the public of project objectives. Final design will be provided by the NCC Representative. Securely fasten signage at eye level. Maintain public side of enclosure in clean condition.
- .4 The modular construction fencing shall also act as the tree protection fencing. Protect existing trees and vegetation from damage by equipment and construction procedures. Refer to Section 32 01 91 – Tree Preservation.
- .5 Install weather resistant signage on the inside of the construction fence that reads "TREE PROTECTION ZONE – Do Not Enter / AIRE DE PROTECTION D'ARBRES – accès interdit". Height of lettering to be minimum 100mm. Ensure high contrast between lettering and background surface. Final design to be approved by the NCC Representative. Fabricate and install signage prior to commencing construction activities. Securely fasten signage at eye level every 12m for the length of the protective fencing.
- .6 Maintain hoarding in good repair.

1.6 Guard Rails and Barricades

- .1 Provide all security elements as required by governing authorities.

1.7 Dust Tight Screens

- .1 Provide dust tight screens or partitions to localize dust generating activities, and for protection of workers, finished areas of Work and public.
- .2 Install screens on all construction fence panels.
- .3 Maintain and relocate protection until such work is complete.

1.8 Access to Site

- .1 Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.
- .2 Maintain access to the main entrance.

1.9 Public Traffic Flow

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect the public.

1.10 Fire Routes

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.11 Protection for Off-Site Property

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

1.12 Protection of Building Finishes

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Confirm with NCC Representative locations and installation schedule 3 days prior to installation.
- .4 Be responsible for damage incurred due to lack of or improper protection.

1.13 Waste Management and Disposal

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management.

PART 2 – PRODUCTS

2.1 Construction Fencing

- .1 Modul-loc Temporary Fence panels or approved equivalent. Panels shall be 1.8m high x 3m wide, powder coated green finish, constructed with square structural steel tubing and 9 gauge welded wire mesh.

2.2 Dust Tight Screens

- .1 Norseman WeatherShield Debris Netting or approved equivalent. The netting shall be green transparent to allow site security to see the interior of the Work Area.

END OF SECTION

PART 1 GENERAL

1.1 Related Sections

- .1 Section 01 33 00 - Submittal Procedures.

1.2 Submittals

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit written request in advance of cutting or alteration which affects:
 - .1 Structural integrity of elements of project.
 - .2 Integrity of weather-exposed or moisture-resistant elements.
 - .3 Efficiency, maintenance, or safety of operational elements.
 - .4 Visual qualities of sight-exposed elements.
 - .5 Work of Owner or separate contractor.
- .3 Include in request:
 - .1 Identification of project.
 - .2 Location and description of affected Work.
 - .3 Statement on necessity for cutting or alteration.
 - .4 Description of proposed Work, and products to be used.
 - .5 Alternatives to cutting and patching.
 - .6 Effect on Work of Owner or separate contractor.
 - .7 Written permission of affected separate contractor.
 - .8 Date and time work will be executed.

1.3 Materials

- .1 Required for original installation.
- .2 Change in Materials: Submit request for substitution in accordance with Section 01 33 00 - Submittal Procedures.

1.4 Preparation

- .1 Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- .2 After uncovering, inspect conditions affecting performance of Work.
- .3 Beginning of cutting or patching means acceptance of existing conditions.
- .4 Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.
- .5 Provide protection from elements for areas which are to be exposed by uncovering work; maintain excavations free of water.

1.5 Execution

- .1 Execute cutting, fitting, and patching including excavation and fill, to complete Work.
- .2 Fit several parts together, to integrate with other Work.
- .3 Uncover Work to install ill-timed Work.
- .4 Remove and replace defective and non-conforming Work.
- .5 Remove samples of installed Work for testing.
- .6 Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- .7 Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not

- allowed on masonry work without prior approval.
- .8 Restore work with new products in accordance with requirements of Contract Documents.
- .9 Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- .10 Refinish surfaces to match adjacent finishes: Refinish continuous surfaces to nearest intersection. Refinish assemblies by refinishing entire unit.

END OF SECTION

PART 1 - GENERAL

1.1 Section Includes

- .1 Progressive cleaning.
- .2 Final cleaning.

1.2 Related Section

- .1 Section 01 74 19 - Waste Management and Disposal.

1.3 Project Cleanliness

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2 Remove waste materials from site at regularly scheduled times or dispose of as directed by NCC Representative.
- .3 Clear snow and ice from access if required for site access.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Provide on-site containers for collection of waste materials and debris.
- .6 Provide and use clearly marked separate bins for recycling. Refer to Section 01 74 19 - Construction/Demolition Waste Management And Disposal.
- .7 Remove waste material and debris from site and deposit in waste container at end of each working day.
- .8 Dispose of waste materials and debris off site.
- .9 Clean areas prior to start of finish work, and maintain areas free of dust and other contaminants during finishing operations.
- .10 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .11 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .12 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .13 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.4 Final Cleaning

- .1 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris.
- .5 Remove waste materials from site at regularly scheduled times or dispose of as directed by NCC Representative.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .7 Remove stains, spots, marks and dirt from fencing.
- .8 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .9 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds disturbed by the work of this contract.

- .10 Remove dirt and other disfiguration from exterior surfaces.
- .11 Sweep and wash clean paved areas disturbed by the work of this contract.

END OF
SECTION

PART 1 - GENERAL

1.1 Section Includes

- .1 Text, schedules and procedures for systematic Waste Management Program for construction, deconstruction, demolition, and renovation projects, including:
 - .1 Diversion of Materials.
 - .2 Canadian Governmental Responsibility for the Environment Resources - Schedule - E.

1.2 Related Sections

- .1 Section 01 33 00 - Submittal Procedures.

1.3 Definitions

- .1 Recyclable: Ability of product or material to be recovered at end of its life cycle and re-manufactured into new product for reuse by others.
- .2 Recycle: Process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.
- .3 Recycling: Process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for purpose of using in altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- .4 Reuse: Repeated use of product in same form but not necessarily for same purpose. Reuse includes:
 - .1 Salvaging reusable materials from re-modelling projects, before demolition stage, for resale, reuse on current project or for storage for use on future projects.
 - .2 Returning reusable items including pallets or unused products to vendors.
- .5 Salvage: Removal of structural and non-structural materials from deconstruction/disassembly projects for purpose of reuse or recycling.
- .6 Separate Condition: Refers to waste sorted into individual types.
- .7 Source Separation: Acts of keeping different types of waste materials separate beginning from first time they became waste.

1.4 Submittals

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures
- .2 Submit before final payment summary of waste materials salvaged for reuse, recycling or disposal by project using deconstruction/disassembly material audit form.
 - .1 Failure to submit could result in hold back of final payment.
 - .2 Provide receipts, scale tickets, waybills, and show quantities and types of materials reused, recycled co-mingled and separated off-site or disposed of.
 - .3 For each material reused, sold or recycled from project, include amount in tonnes and the destination.
- .3 For each material land filled or incinerated from project, include amount in tonnes of material and identity of landfill, incinerator or transfer station.

1.5 Quality Assurance – Site Visit

- .1 Pre-bid site visit:
 - .1 Walk-through of project site prior to completion of bid tender submittal is mandatory.

1.6 Waste Processing Sites

- .1 Provide waste processing site destination locations.

1.7 Storage, Handling and Protection

- .1 Store, materials to be reused, recycled and salvaged in locations as directed by NCC Representative
- .2 Unless specified otherwise, materials for removal do not become Contractor's property.
- .3 Protect, stockpile, store and catalogue salvaged items.
- .4 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.
- .5 Protect surface drainage, mechanical and electrical from damage and blockage.
- .6 Separate and store materials produced during dismantling of structures in designated areas.
- .7 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated facilities.
 - .1 On-site source separation is recommended.
 - .2 Remove co-mingled materials to off-site processing facility for separation.
 - .3 Provide waybills for separated materials.

1.8 Disposal of Wastes

- .1 Do not bury rubbish or waste materials.
- .2 Do not dispose of waste into waterways, storm, or sanitary sewers.
- .3 Keep records of construction waste including:
 - .1 Number and size of bins.
 - .2 Waste type of each bin.
 - .3 Total tonnage generated.
 - .4 Tonnage reused or recycled.
 - .5 Reused or recycled waste destination.
- .4 Remove materials from deconstruction as deconstruction/disassembly Work progresses.
- .5 Prepare project summary to verify destination and quantities on a material-by-material basis as identified in pre-demolition material audit.

1.9 Use of Site and Facilities

- .1 The facilities will not be used until construction is complete.

1.10 Scheduling

- .1 Coordinate Work with other activities at site to ensure timely and orderly progress of Work.

PART 3 - EXECUTION

3.1 Application

- .1 Do Work in compliance with WRW.
- .2 Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.

3.2 Cleaning

- .1 Remove tools and waste materials on completion of Work, and leave work area in clean and orderly condition.
- .2 Clean-up work area as work progresses.
- .3 Source separate materials to be reused/recycled into specified sort areas.

3.3 Diversion of Materials

- .1 Separate materials from general waste stream and stockpile in separate piles or containers, as reviewed by NCC Representative and consistent with applicable fire regulations.
 - .1 Mark containers or stockpile areas.

- .2 Provide instruction on disposal practices.
- .2 On-site sale of materials is not permitted.
- .3 Demolition Waste shall be disposed off site if not scheduled for re-use or salvage and deliver to Owner. Provide a schedule of diversion of demolition waste.
- .4 Construction Waste

<u>Material Type</u>	<u>Recommended Diversion</u>	<u>Actual Diversion %</u>
Cardboard	100	_____
Plastic Packaging	100	_____
Rubble	100	_____
Steel	100	_____
Wood (uncontaminated)	100	_____
Other		_____

END OF SECTION

PART 1 - GENERAL

1.1 Section Includes

- .1 Administrative procedures preceding preliminary and final inspections of Work.

1.2 Inspection and Declaration

- .1 Contractor's Inspection: Contractor and all Subcontractors shall conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify NCC Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
 - .2 Request NCC Representative's Inspection.
- .2 NCC Representative's Inspection: NCC Representative and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor shall correct Work accordingly.
- .3 Completion: submit written certificate that following have been performed:
 - .1 Work has been completed and inspected for compliance with Contract Documents.
 - .2 Defects have been corrected and deficiencies have been completed.
 - .3 Equipment and systems have been tested, adjusted and are fully operational.
 - .4 Certificates required by Utility companies and regulating bodies have been submitted.
 - .5 Operation of systems have been demonstrated to NCC Representative's personnel.
 - .6 Work is complete and ready for Final Inspection.
- .4 Final Inspection: when items noted above are completed, request final inspection of Work by NCC Representative, and Contractor If Work is deemed incomplete by NCC Representative, complete outstanding items and request re-inspection.
- .5 Declaration of Substantial Performance: NCC Representative considers deficiencies and defects have been corrected and it appears requirements of Contract have been substantially performed, make application for certificate of Substantial Performance.
- .6 Commencement of Lien and Warranty Periods: Date of NCC Representative's acceptance of submitted declaration of Substantial Performance shall be date for commencement for warranty period and commencement of lien period unless required otherwise by lien statute of Place of Work.
- .7 Final Payment: When NCC Representative considers final deficiencies and defects have been corrected and it appears requirements of Contract have been totally performed, make application for final payment. If Work is deemed incomplete by NCC Representative, complete outstanding items and request re-inspection.
- .8 Payment of Holdback: After issuance of certificate of Substantial Performance of Work, submit an application for payment of holdback amount.

END OF SECTION

PART 1 - GENERAL

1.1 Section Includes

- .1 Total demolition and removal of site elements indicated on drawings and in this section.
- .2 Excavation and removal and or salvage of existing granular (Phase 1) as indicated on the drawings
- .3 Removal and disposal of existing asphalt (Phase 2) as indicated on drawings.

1.2 Related Sections

- .1 Section 01 35 43 - Environmental Procedures.
- .2 Section 01 74 19 - Waste Management.
- .3 Section 01 74 11 - Cleaning.

1.3 Storage and Protection

- .1 Perform work in accordance with Section 01 35 43 – Environmental Procedures.
- .2 Storage and protection
 - .1 Protect existing items designated to remain and items designated for salvage. In event of damage to such items, immediately replace or make repairs to approval of the NCC Representative and at no cost to the NCC.
 - .2 Remove and store materials to be salvaged, in manner to prevent damage.
 - .3 Handle salvaged materials as new materials.
- .3 Protection of existing work
 - .1 Perform work in accordance to section 01 35 43 Environmental Protection and erosion and sediment control plan.
 - .2 Take the necessary measures to prevent damage, displacement or the collapse of structures, utilities, sidewalks, pavement, trees and landscaping.
 - .1 Provide and install the necessary bracing and shoring parts.
 - .2 Where appropriate, repair works damaged during demolition work according NCC Representative's directive.
 - .3 Properly shore up structure and works. If the demolition work seem to constitute a danger to the rest of the structure or of the work or for structures or adjacent structures or utility lines, take the appropriate precautionary measures, stop work and notify the NCC Representative.
 - .4 Ensure that demolitions do not obstruct the surface water drainage, elevators, lifts as well as electrical and mechanical systems must remain in service.
 - .5 Do not interrupt public service lines which are in service or under voltage and which cross sites or should not be moved.

1.4 Propping, Support and Underpinning

- .1 When conditions are unstable, the NCC Representative must first conduct necessary inspections and indicate the best methods to be used.
- .2 Build temporary structures at the depth, height and in the location authorized by the NCC Representative.

PART 2 – MATERIALS

2.1 Material and Equipment

- .1 Materials and Heavy Machinery

- .1 road vehicles must comply with the requirements of the regulations on emissions of road vehicles and their engines, SOR/2003-2, taken under CEPA and the regulations amending the regulations on emissions of road vehicles and their engines, SOR/2006-268, made under CEPA
- .2 Shut down machinery when not in use, except when extreme temperatures require that machinery be kept in operation.

2.2 Preparation

- .1 Inspect site with NCC Representative and verify extent and location of site elements designated for demolition, relocation, removal, disposal, and salvage. Identify and mark new location for items to be relocated. Verify source, capacity, and routing for utilities required to service relocated items.
- .2 Identify and protect items designated to remain.
- .3 Do not disrupt active or energized utilities traversing site work where designated to remain undisturbed.
- .4 Prior to commencement of demolition work remove contaminated or hazardous materials listed as defined by authorities having jurisdiction from site and dispose of at designated disposal facilities in safe manner and in accordance with the TDGA.
- .5 Use natural lighting to work by wherever possible. Shut off lighting except those required for security purposes at end of day.

2.2 Site Elements Demolition

- .1 Demolish and remove site elements indicated in drawings, as required by work.
- .2 At end of day's work, leave work in safe condition so that no part is in danger of toppling or falling.

2.3 Relocation Clean-Up

- .1 Restore areas and existing works outside areas of demolition to conditions that existed prior to commencement of work match condition of adjacent, undisturbed areas.
- .2 Remove debris, trim surfaces and leave work site clean upon completion of work.
- .3 Remove existing equipment, services, and obstacles where required for refinishing or making good of existing surfaces, and replace as work progresses.
- .4 At end of day's work leave work in safe and stable condition. Protect interiors of parts not to be demolished from exterior elements at all times.

PART 3 - EXECUTION

3.1 Preparation

- .1 Inspect site with NCC Representative and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, salvage and items to remain.
- .2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.
- .3 Notify and obtain approval of utility companies before starting demolition.

3.2 Removal Operations

- .1 Remove items as indicated.
- .2 Do not disturb items designated to remain in place.
- .3 Removal of Pavements, and granular base
 - .1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by NCC Representative.
 - .2 Protect adjacent joints and structures from load transfer.

- .3 Protect underlying and adjacent granular materials.
- .4 Dispose of asphalt materials and granular at a local disposal facility approved by the NCC Representative.
- .5 Protect asphalt that is to remain on site, lighting and other work from deterioration. If elements to remain on site are damaged during work, immediately replace or repair to the satisfaction of the NCC Representative at no cost to the NCC.
- .6 Remove existing asphalt as per limits and elevations indicated on the contract document or established on site by NCC Representative.
- .7 Use materials and methods of removals that do not move or damage the underlying layers unless otherwise indicated.
- .8 Provide a way to remove or at least to limit dust produced during the removal work
- .9 Clean all asphalt surface to remain on site from debris caused by removal works using motorized rotary brooms or hand brushes, as required.

3.3 Stockpiling

- .1 Stockpiling on site will be very limited.
- .2 Label stockpiles, indicating material type and quantity.
- .3 Designate appropriate security resources/measures to prevent public safety issues.
- .4 Locate stockpiled materials convenient for use in new construction to eliminate double handling wherever possible.
- .5 Stockpile materials designated for alternate disposal in location which facilitates removal from site and examination by potential end markets, and which does not impede disassembly, processing, or hauling procedures.

3.4 Restoration

- .1 Restore areas and existing works outside areas of demolition to conditions that existed prior to beginning of Work .
- .2 Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.
- .3 if necessary, repair without delay the works of other entrepreneurs who have been damaged in the above repair or replacement work.
- .4 If, in the opinion of the NCC Representative, it is not appropriate to repair defective works or deemed not conform to the contract documents, the NCC will deduct from the contract amount the difference in value between the executed work and the prescribed work in the contract documents, the amount of this difference being determined by the NCC Representative.

3.5 Cleaning

- .1 Remove debris, trim surfaces and leave work site clean, upon completion of Work
- .2 Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

END OF SECTION

PART 1 – GENERAL

1.1 Section Includes

- .1 Methods for removal of existing asphalt pavement.

1.2 Related Sections

- .1 Section 01 52 00 – Construction Facilities
- .2 Section 01 74 19 – Waste Management and Disposal
- .3 Section 02 41 13 – Selective Site Demolition

1.3 Measurement Procedures

- .1 Removal of existing asphalt pavement will be measured in square metres of surface actually removed regardless of depth removed or number of operations required.
- .2 Payment under this item will include operations involved in removing, hauling and stockpiling designated pavement and cleaning of remaining pavement surface.

1.4 Waste Management and Disposal

- .1 Separate waste materials for recycling in accordance with Section 01 74 21 - Waste Management and Disposal.
- .2 Divert unused asphalt materials from landfill to local facility approved by NCC Representative.

PART 2 – PRODUCTS

2.1 Equipment

- .1 Use cold milling, planning or grinding equipment with automatic grade controls capable of operating from stringline, and capable of removing part of pavement surface to depths or grades indicated.

PART 3 – EXECUTION

3.1 Preparation

- .1 Prior to beginning removal operation, inspect and verify with NCC Representative areas, depths and lines of asphalt pavement to be removed.

3.2 Protection

- .1 Protect existing pavement not designated for removal, light units and structures from damage. In event of damage, immediately replace or make repairs to approval of NCC Representative at no additional cost.

3.3 Removal

- .1 Remove existing asphalt pavement to lines and grades as indicated.
- .2 Use equipment and methods of removal and hauling, which do not damage or disturb underlying pavement.
- .3 Prevent contamination of removed asphalt pavement by topsoil, underlying gravel or other materials.
- .4 Provide for suppression of dust generated by removal process.

3.4 Stockpiling of Material

- .1 Dispose of removed asphalt pavement by stock-piling in location designated by NCC Representative.
- .2 Removed asphalt pavement which is to be recycled in hot mix asphalt concrete under this contract may be stockpiled at designated asphalt plant site.

3.5 Finish Tolerances

- .1 Finished surfaces in areas where asphalt pavement has been removed to be within
+/-[5]mm of grade specified but not uniformly high or low.

3.6 Sweeping

- .1 Sweep remaining asphalt pavement surfaces clean of debris resulting from removal operations using rotary power brooms and hand brooming as required.

END OF SECTION

PART 1 - GENERAL

1.1 Related Work Specified Elsewhere

- | | | |
|----|------------------------------------|------------------|
| .1 | General Instructions | Section 01 11 00 |
| .2 | Environmental Protection | Section 01 35 43 |
| .3 | Site Work Demolitions and Removals | Section 02 41 13 |
| .4 | Granular Materials | Section 32 11 23 |

1.2 Utility Lines

- .1 Before commencing work, establish location and extent of underground utility lines in area of excavation. Notify Contract Administrator of findings.
- .2 Advise Contract Administrator to re-route existing lines in area of excavation. Costs for such work will be paid by Owner.
- .3 Record locations of maintained and re-routed underground utility lines.
- .4 Make good and pay for damage to existing utility lines resulting from work

1.3 Protection

- .1 Protect bottoms of excavations from softening. Should softening occur, remove softened soil and replace with material as directed by Contract Administrator.
- .2 Protect bottoms of excavations from freezing.
- .3 Provide adequate protection around bench markers, layout markers, survey markers, and geodetic monuments.
- .4 Provide protection to ensure no damage to existing facilities and equipment situated on site.
- .5 Effect approved measures to minimize dust as a result of this work.
- .6 Do not stockpile excavated material to interfere with site operation or drainage.

1.4 Compaction Densities

- .1 Compaction densities are percentages of maximum densities obtainable from ASTM D698-70.

1.5 References

- .1 Ontario Provincial Standard Specification (OPSS)
 - .1 OPSS 0212 Construction Specification for Borrow

PART 2 - PRODUCTS

2.1 Materials

- .1 Granular 'A'; as per Section 32 11 23. (if required)
- .2 Sand bedding course per Section 32 11 16
- .3 Topsoil as per section 32 91 21
- .4 Earth Borrow conforming to OPSS 212 and Select Subgrade Material (SSM) conforming to OPSS 1010, free from roots, rocks larger than 75 mm and building debris. If Contractor proposes to use excavated material Contract Administrator's approval will be required before it is used as fill. Contractor to supply imported fill (Earth Borrow and/or SSM) as required to execute the work of this contract and include such requirements and associated costs in the unit price bid.

2.2 Stockpiling

- .1 Stockpile fill materials in areas designated by Contract Administrator. Stockpile topsoil and granular materials in a manner to prevent segregation. Protect stockpiled fill material from freezing.
- .2 Protect fill materials from contamination.

PART 3 - EXECUTION

3.1 Excavating

- .1 Excavate to elevations and dimensions indicated for installation, construction and inspection of work specified.
- .2 Excavate all vegetation and surficial organic material (topsoil, rootmat, peat, etc.)
- .3 Excavate to well defined lines to minimize quantity of fill material required.
- .4 Earth bottoms of excavations to be dry undisturbed soil, level, free from loose or organic matter.
- .5 Notify Contract Administrator when bottom of excavation is reached
- .6 Obtain Contract Administrator's approval of completed excavation.
- .7 Keep excavation free of water while work is in progress.
- .8 Protect open excavations against flooding and damage due to surface run off.
- .9 Provide sediment control measures in accordance with Section 01 35 43 and as indicated elsewhere in the contract.
- .10 Excavation must not interfere with normal 45 degree splay of bearing from bottom of any footing.
- .11 When complete, have Contract Administrator inspect excavations to verify soil bearing capacity, depths and dimensions.
- .12 Correct unauthorized excavation at no extra cost as follows:
 - .1 Fill under bearing surfaces with MG-56 (Granular "B" and/ or SSM) compacted to 95% SPMDD as directed by Contract Administrator;
 - .2 Fill under other areas with approved earth fill compacted to 85% density.
- .13 Do not disturb soil within branch spread of trees or shrubs that are to remain. If excavating through roots, excavate by hand and cut roots with sharp saw.
- .14 Remove concrete masonry, paving, walks, rubble and other obstructions encountered in course of excavation.
- .15 Dispose of all excavated non re-usable material off site.
- .16 Do not obstruct flow of surface drainage or natural watercourses.

3.2 Backfilling

- .1 Do not commence backfilling until areas of work to be backfilled have been inspected and approved by Contract Administrator.
- .2 Areas to be backfilled and backfill material must be free from debris, snow, ice, water or frozen ground.
- .3 Prior to installation of granular materials, compact existing subgrade to obtain required bearing capacity. Remove "soft", unstable or weak subgrade materials and fill with approved material.
- .4 Backfill simultaneously each side of walls and other structures to equalize soil pressures.
- .5 Where temporary unbalanced earth pressures are liable to develop on walls or other structures, erect bracing or shoring to counteract unbalance, and leave in place until removal is approved by Contract Administrator.
- .6 Place and compact fill materials in continuous horizontal layers not exceeding 150 mm compacted depth.
- .7 Use methods to prevent disturbing or damaging buried services. Make good any damage.

3.3 Inspection and Testing

- .1 Testing of materials and compaction will be carried out by testing laboratory designated by Contract Administrator.
- .2 Contract Administrator will pay costs for inspection and testing.

3.4 Surplus Material

- .1 Dispose of material not required for backfill, grading or landscaping, off site.

END OF SECTION

1 PART 1 - GENERAL

1.1 Section includes

- .1 Materials and installation for fertilizing and preserving root systems of plants affected by changing grades or excavation.
- .2 Materials and installation of ground protection and other measures as deemed necessary to protect existing trees according to contract drawings and conditions outlined in this section.

1.2 Related Sections

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 56 00 – Temporary Barriers and Enclosures
- .3 Section 01 74 19 – Waste Management

1.3 References

- .1 Department of Justice Canada
 - .1 Canadian Environmental Protection Act (CEPA), 1999, c.33.
 - .2 Fertilizers Act (R.S. 1985, c. F-10).
 - .3 Fertilizers Regulations (C.R.C., c. 666).
 - .4 Transportation of Dangerous Goods Act (TDGA), 1992, c.34.
- .2 Health Canada - Pest Management Regulatory Agency (PMRA)
 - .1 National Standard for Pesticide Education, Training and Certification in Canada 1995.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).

1.4 Submittals

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit monthly written reports on maintenance during warranty period to the NCC Representative identifying:
 - .1 Maintenance work carried out.
 - .2 Development and condition of plant material.
 - .3 Preventative or corrective measures required which are outside Contractor's responsibility.

1.5 Delivery, Storage and Handling

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 – Waste Management.
 - .2 Place materials defined as hazardous or toxic in designated containers.
 - .3 Dispose of unused fertilizer material at official hazardous material collections site approved by the NCC Representative.
 - .4 Handle and dispose of hazardous materials in accordance with CEPA, TDGA, regional and municipal regulations.
 - .5 Do not dispose of unused fertilizer material into sewer system, into streams, lakes, onto ground in any other location where they will pose health or environmental hazard.
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- .6 Ensure emptied containers are sealed and stored safely.

PART 2 - PRODUCTS

2.1 Materials

- .1 Fertilizer:
 - .1 To Canada Fertilizer Act and Fertilizers Regulations.
 - .2 Complete, commercial, slow release with 35 % of nitrogen content in water-insoluble form.
- .2 Anti-desiccant: commercial, wax-like emulsion.
- .3 Water: potable - free from impurities that inhibit growth.

2.2 Tree Protection Fencing

- .1 The modular construction fencing shall act as the tree protection fencing. Refer to Section 01 56 00 – Temporary Barriers and Enclosures.

2.3 Ground Protection

- .1 Mulch: 2" unpainted, untreated wood chip or bark mulch.
- .2 Granular A.
- .3 Steel plates.

PART 3 - EXECUTION

3.1 Identification and Protection

- .1 Do construction occupational health and safety in accordance with Section 01 35 30 – Health and Safety.
- .2 The trees on this site are ceremonial trees and are designated cultural assets of great importance. They are considered irreplaceable.
- .3 Extreme care must be taken to protect existing trees (including crown, trunk and root system) from damage, compaction and contamination during all stages of work. The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the dripline.
- .4 No material, construction equipment, or vehicles are to be stored in the tree protection zone (TPZ) or within the critical root zone (drip line) of trees at any time.
- .5 No movement of vehicles, equipment or pedestrian in the TPZ will be permitted.
- .6 The use of tree trunks as a backstop, winch support, anchorage, as a temporary power pole, signpost or other similar function is prohibited.
- .7 Any disturbed vegetation or landscaping will be repaired or replaced without delay to the satisfaction of the NCC Representative.

3.2 Tree Protection Fencing

- .1 Supply and erect solid barriers to protect existing trees in accordance with the drawings and to the approval of the NCC Representative.
- .2 Tree protection fencing must be installed before construction begins and equipment arrives on site and maintained until the project is completed.
- .3 Removal of fences, even temporarily to allow deliveries or equipment access is not allowed unless approved by the NCC Representative and ground protection is installed.

3.3 Ground Protection within the Critical Root Zone

-
- .1 Ground protection must be installed before construction begins and equipment arrives on site and maintained until the project is completed.
 - .2 In areas where the critical root zone cannot be fenced and is within the limits of work, wood chip or bark mulch must be installed to a minimum depth of 6", followed by a layer of Granular A with ¾" plywood sheets laid on top. Steel plates can also be used in place of plywood. Leave the tree trunks clear of mulch. Install where indicated in the drawings and as directed by the NCC Representative to protect the sensitive root zone.
 - .3 Asphalt removal from within the critical root zone must be supervised by a certified arborist. Once removed, the granular base shall be protected from repeated compaction from vehicular circulation by the placement of steel plates.

3.4 Excavation within the Critical Root Zone

- .1 Limits of excavation to be approved by the NCC Representative prior to commencing work.
- .2 Hand digging, hydraulic, or pneumatic excavations are permitted methods for excavation within the critical root zone.
- .3 Do not cut or damage roots greater than 25mm (1") diameter. When larger roots are encountered, consult a certified arborist before proceeding. If there are no roots greater than 25mm diameter, leave at least two (2) of the largest roots per meter of trench. Retain as many roots as possible.
- .4 Prune roots that must be removed using sharp, clean tools such as secateurs or a landscape handsaw. Make a clean cut and leave as small a wound as possible. All root pruning to be supervised by a certified arborist.
- .5 If any roots are exposed during construction, they should be immediately reburied with soil or wrapped in peat moss and burlap and kept moist until they can be buried permanently. Avoid exposing roots during hot, dry weather.
- .6 Directional micro-tunneling and boring may be permitted within the limits of the critical root zone subject to the approval of the NCC Representative

3.5 Lowering grade around existing trees

- .1 Begin Work in accordance with schedule approved by the NCC Representative
- 2 Cut slope not less than 500 mm from tree trunk to new grade level.
- .3 Excavate to depths as indicated. Protect from damage root zone which is to remain
- .4 When severing roots at excavation level, cut roots with sharp tools.
- .5 Cultivate excavated surface manually to 15 mm depth.
- .6 Prepare homogeneous soil mixture consisting by volume of:
 - .1 60 % excavated soil cleaned of roots, plant matter, stones, debris.
 - .2 25 % coarse, clean sterile sand.
 - .3 15 % organic matter.
 - .4 Grade 2:12:8 fertilizer at rate of 1.5 kg/m³.
- .7 Place soil mixture over area of excavation to finished grade level. Compact to 85 % Standard Proctor Density.
- .8 Water entire root zone to optimum soil moisture level.

3.6 Watering

- .1 Ensure that the ongoing maintenance and irrigation of the site vegetation is performed by a qualified contractor, while the construction hoarding is in place.
- .2 During the construction period, water existing trees within protected areas by applying water to surface, soaking area 1.5 times the diameter of the dripline of each tree.
- .3 Watering schedule to be approved by the NCC Representative.

3.7 Damage to Trees

-
- .1 Any damage or injury to trees shall be reported as soon as possible to the NCC Representative.
 - .2 A substantial fine, as determined by the NCC Representative, may be enforced for any damage to the trees including unauthorized pruning.

3.8 Pruning

- .1 If pruning is required, consult an arborist and seek approval from the NCC Representative.
- .2 Prune crown to compensate for root loss while maintaining general form and character of plant.

3.9 Anti-Desiccant

- .1 Apply anti-desiccant to foliage where applicable and as directed by the NCC Representative.

END OF SECTION

PART 1 – GENERAL

1.1 Related Work

- .1 Excavating and Backfilling Section 31 23 10
- .2 Waste Management Section 01 74 19
- .3 Granite pavers and curbs Section 32 14 10

1.2 Description

- .1 This section is the materials specification for the following granular materials:
 - .1 Granular 'A' (if required)
 - .2 Sand bedding courses

1.3 References

- .1 American Society for Testing and Materials (ASTM)
ASTM D4791-99, Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
- .2 Ontario Provincial Standard Specifications
OPSS 1010, Material Specification for Aggregates – Base, Sub-base, select Sub- grade, and Backfill Material, Latest Edition.

1.4 Samples

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Allow continual sampling by NCC Representative during production.
- .3 Provide the NCC Representative with access to source and processed material for sampling.
- .4 Pay cost of sampling and testing of aggregates which fail to meet specified requirements.

1.5 Waste Management and Disposal

- .1 Divert unused granular materials from landfill to local facility as approved by NCC Representative.

PART 2 – PRODUCTS

**2.1 Materials;
General Requirements**

- .1 Any granular materials specified for the various works, on the drawings or in other sections of the specifications or by direction of the Contract Administrator, shall conform to this material specification for the class of granular material required.

- .2 The materials shall be selected or produced from pits or quarries to conform to the requirements specified herein for each class of granular materials.
- .3 Material retained on the number 4 sieve shall consist of hard durable particles or fragments of stone or gravel.
- .4 Materials that break up when alternatively frozen and thawed or wetted and dried shall not be permitted.
- .5 Fine aggregate passing the Number 4 sieve shall consist of natural or crushed sand, and, material passing the Number 200 sieve shall consist of fine mineral particles.
- .6 The material shall be free from vegetable matter and lumps or balls of clay.
- .7 The material shall be non-plastic and non-frost susceptible.
- .8 Blending to obtain the correct gradation will be permitted when the Contractor demonstrates that he can produce a correct gradation and has a plant capable of producing to the satisfaction of the Contract Administrator.
- .9 The Contractor shall advise the Contract Administrator two weeks in advance of the intent use of any of the specified materials to allow sufficient time for sampling and testing. The Contractor shall submit samples of granular materials to be used in the works if so requested by the Contract Administrator.
- .10 Approval of a sample does not mean acceptance of the whole source. Each load of material received at the job site shall be subject to all the requirements of that material.
- .11 All gradation requirements are shown as percentage by weight passing U.S. Standards Sieves, A.A.S.H.O. M-92-65.

2.2 Materials: Specific Requirements

- .1 Granular "A"

Gradation requirements:

<u>Sieve</u>			<u>% Passing</u>
9.5	mm	(3/8")	100
4.75	mm	(No. 4)	50-100
1.18	mm	(No. 16)	20-55
300	um	(No. 50)	10-30
75	um	(No. 200)	0-12

- .2 Sand bedding course –See section 32 14 10 Materials for paving bed.

PART 3 – EXECUTION

3.1 Placing

- .1 Place granular sub-base after subgrade is inspected and approved by the NCC Representative.
- .2 Construct granular sub-base to depth and grade in areas indicated.
- .3 Ensure no frozen material is placed.
- .4 Place material only on clean unfrozen surface, free from snow or ice.
- .5 Place granular sub-base materials using methods which do not lead to segregation or degradation.
- .6 Place material to full width in uniform layers not exceeding 150 mm compacted thickness. The NCC Representative may authorize thicker lifts (layers) if specified compaction can be achieved.
- .7 Shape each layer to smooth contour and compact to specified density before succeeding layer is placed.
- .8 Remove and replace portion of layer in which material has become segregated during spreading.

3.2 Compaction

- .1 Compaction equipment to be capable of obtaining required material densities.
- .2 Compact to density of not less than 100% standard proctor maximum dry density.
- .3 Shape and roll alternately to obtain smooth, even and uniformly compacted sub-base.
- .4 Apply water as necessary during compaction to obtain specified density.
- .5 In areas not accessible to rolling equipment, compact to specified density with mechanical tampers approved by the NCC Representative.
- .6 Correct surface irregularities by loosening and adding or removing material until surface is within specified tolerance.

END OF SECTION

- .10 ASTM D2419-09, Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
- .11 ASTM D3203/D3203M-11, Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures.
- .12 ASTM D4791-05e1, Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
- .4 *Bureau de normalisation du Québec*
 - .1 *Standard NQ 2560-114 M2 (2007-02-19) - Travaux de génie civil - Granulats.*
- .5 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-8.2-M88, Sieves Testing, Woven Wire, Metric.
- .6 *Cahier des charges et devis généraux du Québec (CCDG) - Infrastructures routières, Construction et réparation (édition 2012).*
- .7 *Ministère des Transports du Québec*
 - .1 *Cahier des Normes, Ouvrages Routiers, Vol. VII - Matériaux, Standards: 2101 - Granulats, 4101 - Bitumes, 4105 - Émulsion de bitumes, 4201 - Enrobés à chaud formulés selon le principe de la méthode Marshall, 4202 - Enrobés à chaud formulés selon la méthode de formulation du Laboratoire de chaussées.*

1.4 **PRODUCT DATA**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit manufacturer's test data and certification that asphalt cement meets requirements of this section.
- .3 Submit asphalt concrete mix design and trial mix test results to NCC Representative for approval and review at least two (2) weeks prior to beginning work.
- .4 Submit manufacturer's certification that hydrated lime meets requirements of this section.

1.5 **DELIVERY, STORAGE AND HANDLING**

- .1 Stockpile fine aggregate separately from coarse aggregate, although separate stockpiles for more than two mix components are permitted.
- .2 Submit to NCC Representative copies of freight and waybills for asphalt cement as shipments are received.
 - .1 NCC Representative reserves right to check weights as material is received.

Part 2 Products

2.1 MATERIALS

- .1 Asphalt cement: EG-10, 50 mm thick as indicated.
- .2 Performance graded asphalt cement: to AASHTO M320, grade PG58-34 when tested to AASHTO R29.
- .3 Mix design to be developed by testing laboratory and approved by NCC representative.

2.2 EQUIPMENT

- .1 Pavers: mechanical grade controlled self-powered pavers capable of spreading mix within specified tolerances, true to line, grade and crown indicated.
- .2 Rollers: sufficient number of type and weight to obtain specified density of compacted mix.
- .3 Vibratory rollers:
 - .1 Drum diameter: 1200 mm minimum.
 - .2 Amplitude of vibration (machine setting): 0.5 mm maximum for lifts (layers) less than 40 mm thick.
- .4 Haul trucks: sufficient number and of adequate size, speed and condition to ensure orderly and continuous operation and as follows:
 - .1 Boxes with tight metal bottoms.
 - .2 Covers of sufficient size and weight to completely cover and protect asphalt mix when truck fully loaded.
 - .3 In cool weather or for long hauls, insulate entire contact area of each truck box.
 - .4 Use only trucks which can be weighed in single operation on scales supplied.
- .5 Hand tools:
 - .1 Lutes or rakes with covered teeth for spreading and finishing operations.
 - .2 Tamping irons having mass 12 kg minimum and bearing area not exceeding 310 cm² for compacting material along curbs, gutters and other structures inaccessible to roller. Mechanical compaction equipment, when approved by NCC Representative, may be used instead of tamping irons.
 - .3 Straight edges, 4.5 m in length, to test finished surface.

2.3 MIX DESIGN

- .1 Mix design to be approved by the NCC Representative.
- .2 Design of mix: by Marshall method to requirements below.

- .1 Compaction blows on each face of test specimens: 50.
- .2 Measure physical requirements as follows:
 - .1 Marshall load and flow value: to AASHTO T245.
 - .2 Air voids: to ASTM D3203.
 - .3 Voids in mineral aggregates: to AI MS2.
- .4 Do not change job-mix without prior approval of NCC Representative. When change in material source proposed, new job-mix formula will be reviewed by NCC Representative.
- .5 Return plant dust collected during processing to mix in quantities acceptable to NCC Representative.

Part 3 Execution

3.1 PLANT AND MIXING REQUIREMENTS

- .1 Batch and continuous mixing plants:
 - .1 To ASTM D995.
 - .2 Feed aggregates from individual stockpiles through separate bins to cold elevator feeders.
 - .1 Do not load frozen materials into bins.
 - .3 Feed cold aggregates to plant in proportions to ensure continuous operations.
 - .4 Calibrate bin gate openings and conveyor speeds to ensure mix proportions are achieved.
 - .5 Before mixing, dry aggregates to moisture content not greater than 1 % by mass or to lesser moisture content if required to meet mix design requirements. Heat to temperature required to meet mixing temperature as directed by NCC Representative after combining with RAP.
 - .6 Immediately after drying, screen aggregates into hot storage bins in sizes to permit recombining into gradation meeting job-mix requirements.
 - .7 Store hot screened aggregates in manner to minimize segregation and temperature loss.
 - .8 Heat asphalt cement and aggregate to mixing temperature directed by NCC Representative. Do not heat asphalt cement above maximum temperature indicated on temperature-viscosity chart.
 - .9 Make available current asphalt cement viscosity data at plant. With information relative to viscosity of asphalt being used, NCC Representative to review temperature of completed mix at plant and at paver after considering hauling and placing conditions.
 - .10 Maintain temperature of materials within 5 degrees C of specified mix temperature during mixing.
 - .11 Mixing time:
 - .1 In batch plants, both dry and wet mixing times as directed by NCC Representative. Continue wet mixing as long as necessary to obtain thoroughly blended mix but not less than 30s or more than 75s.

- .2 In continuous mixing plants, mixing time as directed by NCC Representative but not less than 45s.
- .3 Mixing time as directed by NCC Representative.
- .12 Where RAP is to be incorporated into mix:
 - .1 Feed from separate cold feed bin specially designed to minimize consolidation of material.
 - .1 Provide 50 mm scalping screen on cold feed to remove oversized pieces of RAP.
 - .2 Ensure positive and accurate control of RAP cold feed by use of hydraulic motor or electric clutch and equip with anti rollback device to prevent material from sliding backward on feed belt.
 - .3 Combine RAP and new aggregates in proportions as directed by NCC Representative. Dry mix thoroughly, until uniform temperature within plus or minus 5 degrees C of mix temperature, as directed by NCC Representative, is achieved prior to adding new asphalt cement.
 - .1 Do not add new asphalt cement where temperature of dried mix material is above 160 degrees C.
- .2 Dryer drum mixing plant:
 - .1 To ASTM D995.
 - .2 Load aggregates from individual stockpiles to separate cold feed bins. Do not load frozen materials into bins.
 - .3 Feed aggregates to burner end of dryer drum by means of multi-bin cold feed unit and blend to meet job-mix requirements by adjustments of variable speed feed belts and gates on each bin.
 - .4 Where RAP is to be incorporated into mix, dryer drum mixer is to be designed to prevent direct contact of RAP with burner flame or with exhaust gases hotter than 180 degrees C.
 - .5 Feed RAP from separate cold feed bin designed to minimize reconsolidation of material.
 - .6 Meter total flow of aggregate and RAP using electronic weigh belt system with indicator that can be monitored by plant operator and which is interlocked with asphalt pump to ensure proportions of aggregate, RAP and asphalt entering mixer remain constant.
 - .7 Allow for easy calibration of weighing systems for aggregates and RAP without having material enter mixer.
 - .8 Calibrate bin gate openings and conveyor speeds to ensure mix proportions are achieved.
 - .1 Calibrate weigh bridge on charging conveyor by weighing amount of aggregate passing over weigh bridge in set amount of time.
 - .2 Difference between this value and amount shown by plant computer system to differ by not more than plus or minus 2 %.
 - .9 Make provision for conveniently sampling full flow of materials from cold feed.
 - .10 Provide screens or other suitable devices to reject oversize particles or lumps of aggregate and RAP from cold feed prior to entering drum.

- .11 Provide system interlock stop on feed components if either asphalt or aggregate from bin stops flowing.
- .12 Accomplish heating and mixing of asphalt mix in approved parallel flow dryer-mixer in which aggregate enters drum at burner end and travels parallel to flame and exhaust gas stream.
 - .1 Control heating to prevent fracture of aggregate or excessive oxidation of asphalt.
 - .2 Equip system with automatic burner controls and provide for continuous temperature sensing of asphalt mixture at discharge, with printing recorder that can be monitored by plant operator.
 - .3 Submit printed record of mix temperatures at end of each day.
- .13 Ensure mixing period and temperature to produce uniform mixture in which particles are thoroughly coated, and moisture content of material as it leaves mixer is 2 % maximum.
- .3 Temporary storage of hot mix:
 - .1 Provide mix storage of sufficient capacity to permit continuous operation and designed to prevent segregation.
 - .2 Do not store asphalt mix in storage bins in excess of 3 hour.
- .4 While producing asphalt mix for this Project, do not produce mix for other users unless separate storage and pumping facilities are provided for materials supplied to this project.
- .5 Mixing tolerances:
 - .1 Permissible variation in aggregate gradation from job mix (percent of total mass).

4.75 mm sieve and larger	2 %
2.00 mm sieve	2 %
0.425 mm sieve	2 %
0.180 mm sieve	2 %
0.075 mm sieve	2 %
 - .2 Permissible variation of asphalt cement from job mix: 0.25%.
 - .3 Permissible variation of mix temperature at discharge from plant: 5 degrees C.
- .6 Addition of anti-stripping agent:
 - .1 Plant to be equipped with pug mill to thoroughly mix aggregates and lime prior to entering the plant.
 - .2 Plant to be equipped with suitable conveyor systems capable of supplying aggregates and lime at constant rate.
 - .3 Plant and equipment used for addition of lime to be equipped with covers to control loss of lime.
 - .4 Plant to be equipped to control rate of lime incorporation to within 1/4 %.
 - .5 Add water to aggregate prior to entering pug mill.
 - .6 Add water to lime sufficiently in advance to permit time to slake prior to entering pug mill.

3.2 PREPARATION

- .1 Reshape granular roadbed.
- .2 Apply prime coat and tack coat.
- .3 Prior to laying mix, clean surfaces of loose and foreign material.

3.3 TRANSPORTATION OF MIX

- .1 Transport mix to job site in vehicles cleaned of foreign material.
- .2 Paint or spray truck beds with limewater, soap or detergent solution, or non petroleum based commercial product, at least daily or as required.
 - .1 Raise truck bed and thoroughly drain, and ensure no excess solution remains in truck bed.
- .3 Schedule delivery of material for placing in daylight, unless NCC Representative approves artificial light for night placing.
- .4 Deposit mix from surge or storage silo to trucks in multiple drops to reduce segregation.
 - .1 Do not dribble mix into trucks.
- .5 Deliver material to paver at uniform rate and in an amount within capacity of paving and compacting equipment.
- .6 Deliver loads continuously in covered vehicles and immediately spread and compact.
 - .1 Deliver and place mixes at temperature within range as directed by NCC Representative, but not less than 135 degrees C.

3.4 PLACING

- .1 Obtain NCC Representative's approval of base and existing surface and tack coat and prime coat prior to placing asphalt.
- .2 Place asphalt concrete to thicknesses, grades and lines to meet and match existing asphalt and flush with granite and or surrounding landscape features.
- .3 Placing conditions:
 - .1 Place asphalt mixtures only when air temperature is 5 degrees C minimum.
 - .2 When temperature of surface on which material is to be placed falls below 10 degrees C, provide extra rollers as necessary to obtain required compaction before cooling.
 - .3 Do not place hot-mix asphalt when pools of standing water exist on surface to be paved, during rain, or when surface is damp.
- .4 Place asphalt concrete in compacted lifts not exceeding 75mm thickness

- .5 Where possible do tapering and levelling where required in lower lifts. Overlap joints by not less than 300 mm.
- .6 Spread and strike off mixture with self propelled mechanical finisher.
 - .1 Construct longitudinal joints and edges true to line markings.
 - .1 NCC Representative to establish lines for paver to follow parallel to centerline of proposed pavement. Position and operate paver to follow established line closely.
 - .2 When using pavers in echelon, have first paver follow marks or lines, and second paver follow edge of material placed by first paver.
 - .1 Work pavers as close together as possible and in no case permit them to be more than 30 m apart.
 - .3 Maintain constant head of mix in auger chamber of paver during placing.
 - .4 If segregation occurs, immediately suspend spreading operation until cause is determined and corrected.
 - .5 Correct irregularities in alignment left by paver by trimming directly behind machine.
 - .6 Correct irregularities in surface of pavement course directly behind paver.
 - .1 Remove excess material forming high spots using shovel or lute.
 - .1 Fill and smooth indented areas with hot mix.
 - .2 Do not broadcast material over such areas.
 - .7 Do not throw surplus material on freshly screeded surfaces.
 - .7 When hand spreading is used:
 - .1 Use approved wood or steel forms, rigidly supported to assure correct grade and cross section.
 - .1 Use measuring blocks and intermediate strips to aid in obtaining required cross-section.
 - .2 Distribute material uniformly without broad casting material.
 - .3 During spreading operation, thoroughly loosen and uniformly distribute material by lutes or covered rakes.
 - .1 Reject material that has formed into lumps and does not break down readily.
 - .4 After placing and before rolling, check surface with templates and straightedges and correct irregularities.
 - .5 Provide heating equipment to keep hand tools free from asphalt.
 - .1 Control temperature to avoid burning material.
 - .2 Do not use tools at higher temperature than temperature of mix being placed.

3.5 COMPACTING

- .1 Roll asphalt continuously to density not less than 98 % of blow Marshall density to AASHTO T245.
- .2 Do not change rolling pattern unless mix changes or lift thickness changes. Change rolling pattern only as directed by NCC Representative.

3.6 FINISH TOLERANCES

- .1 Finished asphalt surface to be within 5 mm of design elevation but not uniformly high or low.
- .2 Finished asphalt surface not to have irregularities exceeding 5 mm when checked with 4.5 m straight edge placed in any direction.

3.7 DEFECTIVE WORK

- .1 Correct irregularities which develop before completion of rolling by loosening surface mix and removing or adding material as required.
 - .1 If irregularities or defects remain after final compaction, remove surface course promptly and lay new material to form true and even surface and compact immediately to specified density.
- .2 Repair areas showing checking, rippling, or segregation.
- .3 Adjust roller operation and screed settings on paver to prevent further defects such as rippling and checking of pavement.

END OF SECTION

PART 1 GENERAL

1.1 SCOPE OF WORK

- .1 Work under this section includes labour, material and equipment required for the implementation of various granite elements: Granite must match existing adjacent granite, manufactured by: Technoprofil. 960, chemin Oliver St-Nicolas Québec Canada G7A 2N1, www.technoprofil.ca
 - .1 Granite Border stones;
 - .2 Granite Pavers;
- .2 **All Granite for Phase 1 & 2 is to be ordered at the start of this contract.** The granite for Phase two (north drive) is to be stored at 101 Tennis Crescent, Ottawa Ontario.

1.2 RELATED SECTIONS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 74 19 – Waste Management
- .3 Section 32 11 23 – Granular Materials
- .4 Section 32 91 21 – Topsoil and Grading

1.3 REFERENCES

- .1 American National Standards Institute (ANSI)/Ceramic Tile Institute (CTI)
 - .1 ANSI/CTI A108.1-[1999], Specification for the Installation of Ceramic Tile.
 - .2 ANSI A108.1-[1999], Installation of Ceramic Tile.
- .2 American Society for Testing and Materials (ASTM International)
 - .1 ASTM C 136-[01], Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - .2 ASTM C 207-[91(1997)], Specification for Hydrated Lime for Masonry Purposes.
- .3 Office des normes générales du Canada (CGSB)
 - .1 CAN/CGSB-8.1-[M88], Tamis de contrôle en fil métallique tressé, métriques.
 - .2 CAN/CSA-A164 série F04 : Normes sur les éléments de maçonnerie en béton.
- .4 CGSB 71-GP-29M-[79], Adhésif élastomère pour l'installation des carreaux de carrière.
- .5 CGSB 71-GP-30M-[79], Systèmes adhésifs époxydiques et de mortier modifié pour l'installation de carreaux de carrière.
- .6 Association canadienne de normalisation (CSA International)
 - .1 CAN/CSA-A3000-[F98], Compendium de matériaux cimentaires (contient A5-98, A8-98, A23.5-98, A362-98, A363-98, A456.1-98, A456.2-98, A456.3-98).
- .7 BNQ 2520-110 Granite curbs.
- .8 All work to be completed in accordance to best practices

1.4 TESTING AND CERTIFICATIONS

- .1 Test reports and certificates to be submitted, certifying that products and materials meet physical requirements and performance criteria.

1.5 TRANSPORT, STORAGE AND HANDLING

- .1 Deliver, store and handle all material in order to prevent any damage.
- .2 Deliver material on site just before implementation.
- .3 Deliver material in their packaging with intact seal and manufacturer's label.
- .4 Store material in their packaging, in a dry place, protected from vandalism and away from heavy traffic.
- .5 Store cardboard standing.
- .6 Handle mortar and grout resin carefully and respect safety instructions on the packaging labels and Safety Data Sheets of the product.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Refer to section 01 74 19- Management and Disposal of Excess Material.
- .2 All packaging and materials to be removed from site and disposed of at an appropriate recycling facility.
- .3 Send all unused adhesives and unused sealants to an authorized site that collects dangerous waste, to be approved by the NCC Representative.
- .4 It is forbidden to dump unused adhesives and sealing products in sewers, in any water courses, , on the ground or at any other place where it may present a risk to health or the environment.
- .5 Send all broken pieces to an approved site.
- .6 Fold, flatten and bind all cardboard and metal strapping. Dispose of at appropriate recycling location.
- .7 Packing spacers, wooden pallets and all other loose packing materials to be disposed of at appropriate recycling location.
- .8 Remove all waste material and recyclable material from site at the end of each working day.

1.7 IMPLEMENTATION CONDITIONS

- .1 According to Manufacturer's specifications, always maintain proper temperature and humidity for the polymeric sand 72 hours before commencement of work and until work is completed.
- .2 Do not install any materials covered in frost, ice or if the material itself is frozen.

PART 2 PRODUCTS

2.1 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- .1 Submit shop drawings, product data and samples for all work described in this section and in the drawings package as per section 01 33 00. Contractor to use the same wording as specified on the plan when preparing shop drawings for granite elements.
- .2 Before commencing any work, NCC Representative must approve all granite samples showing every finish within ten (10) days of contract award
- .3 Submit following product test data:
 - .1 Sieve analysis for gradation of bedding and joint material
 - .2 Granite paver test data
- .4 Submit following shop drawings indicating dimensions, finish, layout, pattern and relationship of paving joints to fixtures and project formed details as well as method of installation.
 - .1 Granite unit pavers
 - .2 Granite borders
- .5 Submit full size samples of the granite unit pavers showing the two (2) specified finishes. The source and finish of each sample must be clearly identified. Samples must represent all color and texture variations that may occur in the stone.
- .6 Supplied stones (after approval of samples) must have the same colors and textures as the approved samples.
- .7 Approval of samples shall occur during daylight hours at a distance of 3 meters away.
- .8 Stone must not present any imperfection other than a light color variation visible at 6m away from surface.
- .9 Submit samples and an electronic copy of product data for:
 - .1 Sand for joints;
 - .2 Sand for leveling bed;

2.2 GRANITE CHARACTERISTICS

- .1 The granite elements in the current project are of one different type of granite: Mystique Brown or approved equal. There are two (2) types of finishes. Every color and finishes must be homogenous and have the same characteristic.
- .2 Aspect: free of cracks, chips or scratches.
- .3 All granite must be free of veins or other defects that may affect its appearance, its resistance or its continuity.
- .4 The physical and mechanical characteristics of granite must be as follows:

Characteristics	Technical Requirements	Test mode
Resistant to compression in dry conditions, perpendicular to stone structure	Min. 140 MPa	ASTM C 170
Rupture module in dry conditions, perpendicular to stone structure	Min. 10,5 MPa	ASTM C 99
Absorption	Max. 0,4 %	ASTM C 97
Density	Min. 2550 kg/m ³	ASTM C 97
Abrasion resistance	Min. 10	ASTM C 241

2.3 PIECES OF GRANITE

- .1 All granite must be provided by an approved supplier. Substitution must be approved by NCC Representative.
- .2 Granite pavers must be cut to respect dimensional tolerance of:
 - .1 ±0,5mm in thickness; and
 - .2 ±0.5 mm in length and width
- .3 Granite edge must be cut to respect dimensional tolerance of:
 - .1 ± 0.5 mm in height and ± 0.5 mm in thickness, measured at the top edge and
 - .2 ± 0.5 mm when the length is specified in the contract documents.
- .4 The stone should not contain veins of more than 1 mm width. Natural stone must have a shine.
 Pavers and curbs of same colors must come from the same extraction site.
- .5 The geological vein width tolerance is 3 mm. No cracks empty or filled with limestone material will be accepted. For the dimensional tolerances of the pieces, refer to point 2.6 of the present section.
- .6 Granite Materials and Finishes:
 - .1 All granite used in this project is Mystic Brown or approved equal
 - .2 All edges eased with 1mm bevel unless noted otherwise.
 - .3 This project specifies two (2) granite finishes:
 - .1 Bush-hammered
 - .2 Thermal
 - .4 Widths, lengths and thicknesses of pavers vary, contractor to refer to plan, details and submitted shop drawings.

2.4 GRANULAR BASE

- .1 Refer to Sections 32 11 16 Granular materials.

2.5 MATERIALS FOR PAVING BED

- .1 Manufactured sand for bedding: hard, durable, crushed stone particles, conforming to gradation of concrete sand as specified in CSA-A231.1-14/ A231.2-14. Sand: granitic origin, free from clay lumps, cementation, organic material, frozen material and other deleterious materials. Do not use limestone screenings or stone dust. Do not use jointing sand in place of bedding sand.
- .2 Gradations: within limits specified when tested to ASTM C136 and ASTM C117. Sieve sizes to CAN/CGSB-8.1. 0% to pass 0.075 mm sieve.

Table 2.3.1 Grain size

Sieve Designation (mm)	% Passing
10	100
5	95-100
2.5	80-100
1.25	50-90
0.630	25-60
0.315	10-35
0.160	2-10

Table 2.3.2 Complementary characteristic.

Characteristic	Prescription	Test mode
Micro-Duval	Max 35%	LC21-101
Flow Rate	Min 80	LC21-075
Absorption	Max 1.0%	LC21-065
Brittleness	Max 40%	LC21-080

2.6 STABILIZE SAND FOR JOINTS

- .1 Sand in bags with a polymeric binder that has already been added in the bag. Manufacturer must be approved by NCC Representative.
- .2 Use: Granite pavers on granular material for bed
- .3 Product: Techniseal HP2 Polymeric Sand or approved equivalent. Colour to be approved by NCC Representative.

PART 3 EXECUTION

3.1 WORK

- .1 Contractor shall perform all work required in the present section and as described on the plans. Contractor to supply all material, tools, labour to execute the following work, without limitation
- .2 Prevent damage to buildings, landscaping, curbs, sidewalks, trees, fences, roads and adjacent property. Make good any damage.
- .3 Provide access to building via the main entrance at all times. Coordinate paving schedule to minimize interference with normal use of the premises.

3.2 REQUIREMENTS PARTICULAR TO WOK :

- .1 Notice to contractor:
 - .1 The contractor shall read the specifications as a whole to realize all the different types of work regarding different trades. Contractor must plan and execute to his own cost all work, which, although not described in the specification, are nevertheless required or necessary to complete the works.
 - .2 His work must fit perfectly with other trades and crafts to form a perfect execution. The execution must be made in the required way and in a timely manner in order not to delay the work.
 - .3 Any errors, omission and imperfections in the work of any other trades must not serve as an excuse or pretext for errors, omission or imperfection in contractor's work.
- .2 Screening:
 - .1 The contractor shall verify that the surfaces and conditions of work already completed are in condition to receive the works described in this section. Any anomaly or inconsistency shall be reported to the NCC Representative immediately and must be corrected before doing any additional work. Check all measures and templates on site before doing any work
- .3 Survey:
 - .1 Contractor must provide the services of a qualified Land Survey team To ensure finished grade elevations of new pavers match the existing conditions prior to stone dust and asphalt removal.
- .4 Layout plan:
 - .1 Contractor must submit a detailed layout plan showing all the granite pavers and granite curb work. Layout plan must indicate type of pavers' borders and method of installation. Layout plan will be done using AutoCAD software, according to the coordinate system SCOPQ starting with the base plan supplied by the NCC Representative. Granite supplier shall deposit pavers on wood pallets in accordance to the layout plan.
 - .2 Contractor must specify to supplier that the product ordered must meet all specifications regarding the implementation of the granite pavers on sand bed. Delivery slips should identify the project.
- .5 Instructions to Granite Supplier
 - .1 Direct the granite supplier to deposit the granite elements on wooden pallets in

- sequenced order for transport in accordance with the approved layout plan for that element.
- .2 Inform the granite supplier of all specifications regarding the installation of the various granite elements.
- .3 Delivery slips must identify the project.
- .6 Site mock-up
 - .1 Contractor to install a 2m x 4m mock up prior to paving. This mock-up must include a 2m section of granite borders, and granite pavers. This mock-up will be used to determine joints width, alignment and patterns. This mock-up will be executed with all concerned parties on site and once approved, will be the standard for judging the compliance of work and may be incorporated into the project.
- .7 Quality insurance of labour.
 - .1 The contractor must ensure that the team in charge of cutting, measuring and installing the granite pieces are experienced and follow best practices. Extra care should be taken when cutting the radius around the drinking fountain.

3.3 SUBGRADE

- .1 Ensure the subgrade preparation conforms to levels and compaction required for the installation of the granular sub-base.

3.4 GEOTEXTILE

- .1 Install where indicated.

3.5 GRANULAR BASE

- .1 Refer to Sections 32 11 16 – Granular materials

3.6 SAND LEVELING COURSE

- .1 Maximum thickness after compaction: 25mm.
- .2 Do not use bedding sand to compensate for depressions that exceed specified tolerances in surface of base. Do not use joint sand for bedding sand.

3.7 STABILIZED JOINTING SAND

- .1 Use where indicated in the plans. Install as per manufacturer's instructions.

3.8 GRANITE PAVERS AND BANDING

- .1 Ensure bedding sand and granular base are not saturated prior to placement of granite unit pavers.
- .2 Install paving true to grade on the bedding sand, in location, layout and pattern as indicated. Place them manually or mechanically without compressing the loose bed underneath.
- .3 Confirm the starting out point on site with the NCC Representative prior to laying the pavers.
- .4 Verify continuity of curves and ensure that rows are parallel at least every two (2) meters. Realign as necessary.
- .5 Where required, cut pavers accurately without damaging edges. Use a water table saw. Do not cut near or beside a recently paved area. Ensure a sufficient water supply is used at all times to reduce dust. Do not cut within 25mm of the edge of a paver. Do not cut more than three factory edges of any given paver. Ensure paver layout does not allow for 'sliver cuts'.
- .6 For vehicular areas, use cut pieces no smaller than one-third of a whole paver. In the event this is unavoidable, do not proceed without approval from the NCC Representative. Replace damaged or defective items before filling joints.
- .7 Pavers shall have 6mm wide joints (to match adjacent granite surfaces). Alignment tolerances for joint lines compared with the contract documents is ± 2 mm.

- .8 Fill joints between pavers by sweeping in Polymeric sand. Ensure all excess has been swept clean prior to compaction. Any pebbles susceptible of breaking the edges of granite elements during compaction must be removed from the joints.
- .9 Pass mechanical plate vibrator over unit paving to achieve compaction of sand in joints. Use minimum 22 kN force mechanical plate vibrator and minimum 19mm thick plywood or neoprene pad under plate compactor and over granite. The plate tamper must never be in direct contact with the natural stone elements.
- .10 Make three (3) passes in different directions. Ensure joints are full at completion of compaction. Do not compact unit paving within 1m of unrestrained edges or from a non-filled joint edge.
- .11 Compact and level granite until units are true to grade and free of movement. Ensure final elevation of pavers takes into account the mechanical compaction of the completed pavers.
- .12 Any paver damaged as a result of compaction must be replaced immediately.
- .13 At completion of each work day, ensure all work beyond 1 m of laying face is left fully compacted with sand filled joints. A water proof non-staining tarp must be installed on any areas where joints have not been completely filled and compacted.
- .14 Tolerance for paving surfaces lengthwise and crosswise in relation to prescribed grade is $\pm 3\text{mm}$ as measured with a 3m straight edge placed diagonally at 45° from joint orientation. Verification will be done every 10m^2 of surface. Grading will be considered acceptable when this tolerance is respected for 95% of control points and no difference is greater than 10mm. Levels between adjacent elements are not to exceed 2mm.
- .15 Sweep surface clean and check final elevations for conformance to drawings.

3.9 GRANITE BORDERS

- .1 Install borders true to grade, in location, layout and pattern as indicated in the plans.
- .2 A maximum discrepancy of $\pm 5\text{mm}$ is allowed for layout, levels and alignments. The difference in elevation between curbs must not exceed 5mm.

3.10 QUALITY CONTROL

- .1 The NCC Representative reserves the right to ask for samples or other items from fabricators or on site to verify conformity between contract documents and supplier submitted information on material or other elements. In case of non-compliance, the NCC Representative may refuse in part or in total the material.
- .2 Provide all necessary assistance to the NCC Representative to obtain and handle samples.
- .3 Material: Material will be refused if any physical characteristic does not comply with the specification. Remove and immediately replaced it with a complying material.
- .4 Element implementation: Immediately correct defects in the work if implementation does not comply with the specifications. In the case of non-compliance, the NCC Representative reserves the right to stop the work and impose corrective measures.

3.11 CLEANING

- .1 Once work is complete, sweep all surfaces clean. Wash granite according to manufacturer's instructions. Use soft fibre brushes

END OF SECTION

PARTIE 1 - GENERAL

1.1 Related Work Specified Elsewhere

- .1 Excavating & Backfilling Section 31 23 10
- .2 Sodding Section 32 92 23

1.2 Testing

- .1 Obtain Contract Administrator's initial approval of imported topsoil at source.
- .2 Test existing and imported topsoil for NPK, Mg, soluble salt content, organic matter and pH value prior to delivery to site.
 - 1 Submit 0.5 kg sample of topsoil to testing laboratory and indicate intended use.
 - 2 Determine requirements for amendments to bring pH value of soil to 5.5 to 7.7 level.
 - 3 Submit two copies of soil analysis and recommendations for corrections to Contract Administrator.
- .4 Inspection and testing of topsoil will be carried out by testing laboratory designated by Contract Administrator.
- .5 National Capital Commission will pay cost of testing.

1.3 Scheduling of Work

- .1 Schedule placing of topsoil to permit immediate seeding and sodding operations.

PARTIE 2 - PRODUCTS

2.1 Materials

- .1 Stockpiled topsoil: see Section 31 23 10
- .2 Imported topsoil: friable loam, neither heavy clay nor of very light sandy nature containing minimum of 10% organic matter for sandy loams to maximum of 25% by volume. Free from subsoil, roots, grass, weeds, toxic materials, stones, foreign objects and an acidity range (Ph) of 5.5 to 7.5. Topsoil containing crabgrass, couch grass or other noxious weeds, not acceptable.
- .3 Lime: Ground agricultural limestone containing minimum 85% of total carbonates, 90% passing 1.0 mm sieve, 50% passing 0.125 mm sieve by weight.
- .4 Sulphur: Horticultural Grade

PARTIE 3 - EXECUTION

3.1 Preparation

- .1 Grade subgrade, eliminating uneven areas and low spots, ensuring positive drainage. Remove stones larger than 50 mm diameter and other deleterious materials. Remove subsoil that has been contaminated with oil, gasoline or calcium chloride. Dispose of removed materials as directed.
- .2 Cultivate entire area receiving topsoil to depth of 50 mm. Core aerate in those areas where equipment used for hauling and spreading has compacted subgrade. Do not cultivate soils around existing trees and shrubs.

3.2 Reuse of Existing Topsoil

- .1 Unless otherwise indicated existing stockpiled topsoil shall be used for all reinstatement. Imported sources of topsoil shall only be used when all approved sources of existing topsoil have been used.

3.3 Spreading of Topsoil

- .1 Do not spread topsoil until Contract Administrator has inspected and approved subgrade.
- .2 Spread topsoil with adequate moisture in uniform layers during dry weather over approved, dry, unfrozen subgrade, where seeding is indicated.
- .3 Bring topsoil up to finished grade.
- .4 Apply topsoil to the following minimum depths:
 - 1 100 mm for seeded and sodded areas.
 - 2 50 mm for forest litter only
- .5 Remove stones, roots, grass, weeds, construction materials, debris and foreign non-organic objects from topsoil.
- .6 Manually spread topsoil around trees, plants, surface utilities and other obstacles.

3.4 Soil Amendments

- .1 If required, apply lime, sulphur or other soil amendment at rate determined from soil sample test.
- .2 Mix soil amendment well into full depths of topsoil by cultivating.

3.5 Finish Grading

- .1 Fine grade entire topsoiled area to contours and elevations as indicated or as directed. Eliminate rough spots and low areas to ensure positive drainage.
- .2 Roll topsoil with 50 kg roller, minimum 900 mm wide, to compact and retain surface.
- .3 Leave surface smooth, uniform, firm against deep foot printing, with fine loose texture.

3.6 Surplus Material

- .1 Dispose of surplus topsoil not required for fine grading/landscaping off site.

END OF SECTION

PART 1 - GENERAL

1.1 Related Sections

- .1 Section 32 91 21 - Topsoil and Finish Grading
- .2 Section 01 74 19 - Waste Management

1.2 Quality Assurance

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.3 Scheduling

- .1 Schedule sod laying to coincide with preparation of soil surface.
- .2 Schedule sod installation when frost is not present in ground.

1.4 Warranty

- .1 The Contractor hereby warrants that all sod installed will remain free of defects in accordance with NCC Representative approval, in following spring one year after start of growing season providing adequate maintenance has been provided.
- .2 End-of-warranty inspection will be conducted by NCC Representative

PART 2 - PRODUCTS

2.1 Sod Supplier

- .1 Manderlay (Head Office) 21 Concourse Gate, Ottawa, Ontario, K2E 7S4 or approved equivalent.
Contact: Sean Moher, Manderlay (613) 225-7500 x 229
 - .1 Sod Blend:
 - 29.67% Ridgeline Kentucky Bluegrass
 - 29.57% Monte Carlo Kentucky Bluegrass
 - 28.91% Mallard Kentucky Bluegrass
 - 9.88% Diva Kentucky Bluegrass
 - 1.97% Inert Matter (0% Weed Seed)
 - .2 Substitutions will be considered.

2.1 Materials

- .1 Number One Turf Grass Nursery Sod: sod that has been especially sown and cultivated in nursery fields as turf grass crop.
 - .1 Turf Grass Nursery Sod types:
 - .1 Number One Kentucky Bluegrass-Fescue –Clover Sod - Fescue Sod: Nursery Sod grown solely from seed mixture of cultivars of Kentucky Bluegrass and Chewing Fescue or Creeping Red Fescue, containing not less than 40% Kentucky Bluegrass cultivars and 30% Chewing Fescue or Creeping Red Fescue cultivars with 5% White Dutch Clover.
 - .2 Turf Grass Nursery Sod quality:
 - .1 Not more than 2 broadleaf weeds or 10 other weeds per 40 square metres.
 - .2 Density of sod sufficient so that no soil is visible from height of 1500 mm when mown to height of 50 mm.
 - .3 Mowing height limit: 35 to 65 mm.
 - .4 Soil portion of sod: 6 to 15 mm in thickness

- .2 Water:
 - .1 As supplied by site.

- .5 Fertilizer:
 - .1 To Canada "Fertilizers Act" and "Fertilizers Regulations".
 - .2 Complete, synthetic, slow release with 65 % of nitrogen content in water-insoluble form.

2.2 Source Quality Control

- .1 Obtain approval from NCC Representative of sod at source.
- .2 When proposed source of sod is approved, use no other source without written authorization from NCC Representative.

PART 3 - EXECUTION

3.1 Preparation

- .1 Verify that grades are correct and prepared in accordance with Section 32 91 21 - Topsoil Placement and Grading If discrepancies occur, notify NCC Representative and do not commence work until instructed by NCC Representative
- .2 Do not perform work under adverse field conditions such as frozen soil, excessively wet soil or soil covered with snow, ice, or standing water.
- .3 Fine grade surface free of humps and hollows to smooth, even grade, to contours and elevations indicated, to tolerance of plus or minus 8 mm, for Turf Grass Nursery Sod and plus or minus 15 mm for Commercial Grade Turf Grass Nursery, surface to drain naturally.
- .4 Remove and dispose of weeds; debris; stones 50 mm in diameter and larger; soil contaminated by oil, gasoline and other deleterious materials; off site in location as directed by NCC Representative.

3.2 Sod Placement

- .1 Lay sod within 24 hours of being lifted if air temperature exceeds 20 degrees C.
- .2 Lay sod sections in rows, joints staggered. Butt sections closely without overlapping or leaving gaps between sections. Cut out irregular or thin sections with sharp implements.
- .3 Roll sod as directed by NCC Representative Provide close contact between sod and soil by light rolling. Use of heavy roller to correct irregularities in grade is not permitted.

3.3 Fertilizing Program

- .1 Fertilize during establishment periods to following program:

Date	Rate	Ratio
Two weeks after sodding	0.5 kg/ 100m ²	2:1:1
Fall	0.5 kg/ 100m ²	2:1:1
Spring	0.5 kg/ 100m ²	2:1:1

3.4 Maintenance During Establishment Period

- .1 Perform following operations from time of installation until acceptance.
- .2 Water sodded areas in sufficient quantities and at frequency required to maintain optimum soil moisture condition to depth of 75 to 100 mm.
- .3 Cut grass to 60 mm when or prior to it reaching height of 90 mm. Remove clippings that will smother grassed areas as directed by NCC Representative
- .4 Maintain sodded areas 95% weed free.

- .5 Fertilize areas in accordance with fertilizing program. Spread half of required amount of fertilizer in one direction and remainder at right angles and water in well.

3.5 Acceptance

- .1 Turf Grass Nursery Sod areas will be accepted by NCC Representative provided that:
 - .1 Sodded areas are properly established.
 - .2 Sod is free of bare and dead spots.
 - .3 No surface soil is visible from height of 1500 mm when grass has been cut to height of 60 mm.
 - .4 Sodded areas have been cut minimum 2 times after contract substantial completion prior to acceptance. Mowing must be completed at minimum bi-weekly until acceptance.
- .2 Areas sodded in fall will be accepted one year after start of growing season provided acceptance conditions are fulfilled.

3.6 Maintenance During Warranty Period

- .1 Repair and re-sod dead or bare spots to satisfaction of the NCC Representative for areas that have failed to establish or been damaged due to construction activity.

3.7 Cleaning

- .1 Upon completion of installation remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION